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Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. Evaluation of Final Report.

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This evaluation of the Syracuse University model for elementary teacher education (SP 002 147-48) is performed by 15 nonSyracuse educators who contributed their reactions (recorded in separate chapters) to specific model components in terms of the latter's strengths, weaknesses, and feasibility. The authors of the first four chapters, in viewing the overall model, pivoted their critical remarks around: the influence of behavioral science on teacher training, the curriculum, generalizability and feasibility of the model for adopting institutions, and the model's assumptions and structure. The remaining 11 chapters are critiques of the following model components: Liberal Arts, Methods and Curriculum, Child Development, Teaching Theory and Practice, Professional Sensitivity Training, Social-Cultural Foundations, Self-Directed (student participation in program decisions), Field Experience, and the Support Systems for Program Development, Information and Evaluation, and Organization. (LP)

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EVALUATION OF FINAL REPORT

Project No. 8-9018

Contract No. OEC-0-8-9018-3313 (010)

SPECIFICATIONS FOR A COMPREHENSIVE UNDERGRADUATE AND INSERVICE TEACHER EDUCATION PROGRAM FOR ELEMENTARY TEACHERS

December 31, 1968

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

SP002337

On October 31, 1968 Syracuse University submitted to the Office of Education its Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers, a final report on Project No. 8-9018, one of nine projects funded to develop model elementary teacher education programs. It was the feeling of the authors that potential adopters of the Syracuse model would find it useful to have, in addition to the final report, an evaluation of the model. This was performed by non-Syracuse educators with a wide range of expertise. Toward that end, an evaluation conference was held on December 2 and 3, 1968. The following consultants were asked to react to the model or various parts of the model in terms of its strengths, weaknesses, and feasibility:

Consultants	Chapter or Segment
Francis Di Vesta Dept. of Educational Psychology Pennsylvania State University	Overall Model
James K. Duncan School of Education The Ohio State University	Overall Model
William R. Hazard Associate Dean School of Education Northwestern University	Overall Model
Leon Ovsiew Educational Administration Temple University	Overall Model
Thomas F. Powell Dean of Arts and Science SUNY College Oswego	Liberal Education
Elizabeth Howard School of Education University of Rochester	Methods and Curriculum

Martha Rashid Child Development Department George Washington University	Child Development Component
Donald R. Cruickshank Assistant Dean for Research and Development University of Tennessee	Teaching Theory and Practice
Norma Fields Furst Educational Psychology Department Temple University	Professional Sensitivity Training Component
Louis Fischer Professor and Chairman Social and Philosophical Foundations San Fernando Valley State College	Social-Cultural Foundations
Norman H. Wilson, Director Putney Center The Antioch-Putney Graduate School of Education	Self-Directed Component
Gregory L. Trzebiatowski Assistant Professor Educational Development College of Education The Ohio State University	Program Development Support System
Hans C. Olsen Assistant Dean School of Education University of Missouri	Field Experience Segment
David E. Hunt, Professor Department of Applied Psychology Ontario Institute for Studies in Education	Information and Evaluation Support System
Richard Schmuck Center for the Advanced Study of Educational Administration University of Oregon	Organizational Support System

Their reactions to the Syracuse model are reported in the document which follows.

The METEP Directorate

Syracuse University

December 31, 1968

REACTION TO THE OVERALL MODEL

by: Francis J. Di Vesta

The report represented here can be viewed from as many vantage points as there are facets to its organization. Several readers representing different areas of educational concern could provide as many different views without overlap. Thus, the present critique has been consciously limited to a discussion of the model based on the implications of behavioral science for teacher preparation in order to best represent the interests and competencies of the reviewer. Other general points of departure may be obtained from the discussions of such persons as those whose competencies are in curriculum, higher education, or administration. All should be represented in a thorough evaluation.

Within this orientation the critique has been written in several sections. The first is a general perspective of the current societal scene, believed by this reviewer to make special demands on the teacher and, hence, to influence the nature of teacher preparation. The second section attempts a description of teacher competencies served by this model, as perceived by the reviewer, against the perspective of social change requirements. The third section presents some concerns about factors that might influence the successful implementation of the model by the unwary user. The fourth and final section is devoted to some general reactions to questions raised about the proposal at large.

Social Change and Teacher Preparation: A Perspective

One need not be reminded that today's teacher is in the midst of drastic, but innovative, changes in both the educational and societal scenes.

The qualitative characteristics, magnitude, and means of implementation of the consequent reforms are so different from any experiences in the past that history is certain to record the period as one of educational and social revolution (or reform). The implications of these changes are bound to be as profound as any of those emanating from the industrial revolution. The complexity of this situation is compounded further by the concurrent involvement of society in major technological revolution.

Revolutions of these proportions and in so many areas present a highly fluid, if not volatile situation. Individuals (and the society) must be prepared to answer questions, solve problems, and engage in confrontations by unprecedented instrumentalities. In education it is no longer tenable for a teacher to take only the traditional position that history is relevant to education because it provides the pupil with ready made answers and corrections of errors made by previous generations. Technological changes, and the questions they elicit, were never dreamed of in the wildest fantasies of the previous generation. Thus, history itself fails to provide answers to some of our most important questions. The rights of the individual are being examined in unprecedented fashio at all societal levels with the promise of major reforms long overdue and unexpected by earlier generations. The prolific development of education innovations, increasing at a positively accelerating rate, can be as confusing as they are engaging to the teacher and administrator alike.

The common key in each of these revolutions is the requirement for adaptation. Management and labor must adapt to industrial revolutions. The society at large, with all of its institutions, must adapt to technological change. Particularly demanding (and responsible) adaptations are required of individuals on all sides of societal revolutions. Teachers, pupils, and parents are active participants in educational revolutions whether or not they choose to be.

There is yet another outcome of reforms of the types being described. In their consolidation phase, there is a concern for ways of adjusting to the consequences. However, in their active stage (which is typically characterized by a departure from tradition, departure from traditional values, extreme vacillation, and high levels of emotion) there are correlated levels of threat and insecurity to all who are touched by the issues, however indirectly. It is probably a reasonable assumption that we are currently in a very active stage of the educational revolution.

The implications of this perspective for the specifications of a comprehensive undergraduate teacher education program are clear: first, teachers must be prepared to make decisions in classroom management that are soundly based on psychological, sociological and philosophical foundations; second, teachers must be aware of new changes in educational thinking and must be able to incorporate new innovations into the classroom on the basis of evidence that such innovations are advantageous to achieving problem-solving objectives; third, the teacher must be able to adjust to an extended period of continual changes in the foreseeable future---such adjustment will seriously challenge not only the intellectual but also the emotional capacities of teachers. Despite these requirements, current teacher education programs continue to prepare teachers in the tradition of technical training rather than in the tradition of professional training permitting adaptation to current social concerns.

There is some justification for teaching mechanized teaching routines as often taught in methods courses: stereotyped methods provide the teacher with ready made tools that can be used in a variety of situations. They do help in making adjustments during the transition periods as, for example, when the student is exploring teaching as a possible vocation, or when he is teaching on his own, independent of a supervisor, during the first few weeks in a new position or in a new school. Routines provide relative security during these difficult periods. The weakness is that traditional programs fail to wean the beginning teacher away from routine procedures to the less secure (but more effective) teaching procedures wherein he is able to improvise efficient methods for teaching in a given classroom, for a given objective, for a new societal demand, or for teaching pupils with certain characteristics.

Stated in a slightly different manner it is expected that a teacher, pursuing a modern teacher training curriculum will be able to a) adapt readily to the initial teaching situation however "initial" may be defined; b) make innovative changes that will be more than exploratory and which will be based on sound knowledge of related disciplines; c) keep up with the literature related to his field; d) be as modern 10, 15, or 20 years from now as he is at "graduation."

The Syracuse Model for Teacher Preparation: An Overview and Critique

Does the present model provide for the attainment of the ambitious end-products described? The anser, it seems to the present reviewer, is to be found in the kinds of competencies the model intends to build in prospective teachers. Upon review of these competencies the reader will be impressed by their comprehensiveness and the degree to which they contribute to the development of students into teachers. The competencies that might be developed if the proposal, ideally, was to be implemented in its entirety, in the perception of this reviewer, are described here. (The reader will recognize, of course, the inordinate difficulty of presenting a completely descriptive synopsis of more than 500 pages in a half-dozen paragraphs.) They might appear as follows:

a) Concern with child study. The teacher must know about children, how children behave in different circumstances, the regularities and irregularities in their development, and the forces that modify the so-called "normal" course of development. More important than the mere acquisition of this knowledge is that the teacher must be able to use what he knows in a functional manner. He must relate this knowledge to match teaching circumstances with readiness patterns or, as some have said, with "entering behavior."

In the past this concern has been manifested in different ways. The "formal discipline" era, if one strips away its physiological explanations, emphasized some very general forms of transfer irrespective of discipline or developmental processes. Impose enormous requirements for the practice of memorization and the memory "faculty" would be strengthened for all occasions. Similarly, will power could be strengthened *for all situations* by appropriate exercise of this faculty of the mind. This view was soon to be discarded as a consequence of Thorndike's theory of the transfer of identical elements. The "practical curriculum" that followed was an overreaction to "formal discipline" and emphasized specific training in an area of study irrespective of individual differences. Later came the "whole-child" or "progressive education" movement. It strongly emphasized the interrelatedness of personality and education but, in its most severe form, stood for a curriculum almost wholly child-centered. But the subsequent "Sputnik era" changed all this and, in an about face, education placed considerable emphasis on "the discipline" as the determiner of the curriculum.

Currently, it seems, we are in a period of social change in which all of the traditional methods are being challenged in favor of methods based on precise descriptions of the interactions between pupil individual differences, task variables (method, content, etc.) and teacher variables. Curriculum based on the development of transferable process skills (learning to learn, problem-solving, etc.) together with content in specific disciplinary areas are now very much in the Zeitgeist as found in the several curricular reform programs. Teachers are expected to adopt a wide variety of teaching styles in order to adapt to different behavioral schema.

This is the kind of program that is described in the model. If successfully implemented it prepares teachers for an assortment of situations. Thus, it is a "general" program. The Liberal Education Component, the Methods and Materials Component and the Child Development Component, in particular, combine to help prepare teachers to cope with any pattern of capacities (broadly defined to include cognitive and noncognitive variables) *that might exist in a classroom* whether such patterns are based on differences in developmental patterns, sociological patterns . . . or what have you?

b) Concern with individual differences. To do justice to the proposed model requires that the reviewer notes the fact that the model provides for the development of this competency as the consequence of training in several areas. However, for present purposes it seems desirable to isolate the manner in which the topic of individual difference is handled. Traditionally and, unfortunately, currently, most teacher preparation curricula treat measurement in the manner of an abstract content area. The reader may have questioned, as has the reviewer, the fruitfulness of such procedures. How great is the amount of time spent in such courses on calculating T-scores or standard deviations, or on such matters as the theory of reliability or validity. Yet, it is dubious that more than a handful of teachers ever, in practical school setting, use the statistics they struggled over during their college careers. This is not to say that such matters are unimportant. Rather it is to say that devoid of functional application they are sterile endeavors for the prospective (and practicing) teacher.

The proposed model, through the construct of presage, submits that measurement and the subject matter of individual differences are part and parcel of a functional approach to use of measurement in teaching. Thus, measurement of individual differences becomes an essential for diagnosing "entering" behavior and for making sound decisions about whatever needs for remediation, enrichment, or other teaching methods are called for. Measurement becomes a functional tool for identifying (with impunity, we hope) one's teaching weaknesses, for measuring how well and how effectively one, as a teacher, has achieved intermediate and terminal objectives.

All of this implies that consideration must be given to the development of behavioral objectives despite the unsupported criticism of some that behavioral objectives may restrict the flexibility of the teacher. Without behavioral objectives the teacher may be ignorant of the paths that might be taken and of how pupils are to be evaluated; their absence, however, does not increase his flexibility.

Thus, it can be seen, the proposed model takes the broader view of relating the functions of measurement, together with knowlege of child growth, to the ways teachers and schools employ these tools and knowledges.

c) Establishing learning environments. The abilities described above would be of limited utility unless some functional basis for promoting learning was provided. Accordingly, it is useful to think of the teacher as a creator of miniature environments with which the pupil interacts. The characteristics of the environment determine both whether the pupil will interact, and the quality of his interaction, thereby determining, in turn, what he will learn. (Such a view could be justified within the framework of either a cognitive or a neo-behavioristic orientation although space does not permit doing so at this point.)

This model provides for training to develop the ability of the teacher to use whatever principles are required to establish effective learning environments (as opposed to the outdated notion implying transmission of information). It assumes, as can be seen in the chapters on the Method Component and the Teaching Theory Component that a teacher, to be an effective change agent, must know what has happened, what is happening (to the pupil) and what causes affect these changes. Other competencies are provided for, including the abilities: 1) to adapt and utilize a changing technology of education; 2) to understand the psychological bases of a given educational practice; 3) to make sound innovative changes in traditional teaching methods when demanded by given subject matter, when required by changes in student populations, when changes occur in schools, and the like.

One cannot help but be impressed by the fact that this program, if successfully implemented, should enable the teacher to shift easily from one established environment to another and to shift flexibly in establishing one environment or another depending on the demands of the situation.

d) The societal context. Some may argue the point, but, in this reviewer's experience, teachers do affect policy decisions about curricular changes and school organization. If they are to be made intelligently, such decisions must take into consideration: 1) changing emphases of institutions within the society; 2) decisions made within the context of other institutions; 3) changes to be encouraged or implemented in other institutions; and 4) the effects other social institutions (e.g. family and church) have on the socialization process. Thus, the model attempts to place the functions of the teacher, as an effective agent of the educational institution, in relationship to the society at large.

But there is another facet of the societal context, though more limited in scope, which is also given consideration: the teacher is expected to develop the competency of dealing with people in groups, that is, to develop an understanding of the social psychology of the classroom. Thus, he must know about the individual's behavior in groups and the effects of group characteristics (subcultural patterns, norms, values, and attitudes) on the individual. Such knowledges should provide a basis for the teacher to make effective decisions about 1) adapting to readiness patterns of behavior; 2) managing the classroom; 3) assisting pupils to make wise decisions; and 4) the use of mass media. Specifically, within the classroom the teacher must be able to identify the many-faceted group structures, whatever their composition; the potential influence of different group norms on the individual pupil's behavior including his personal norms, level-of-aspiration, values, conforming behavior, etc.; the potential influence of the group on individual "deviant" behavior such as juvenile delinquency; and, of course, to identify the influence of the individual on the class in such phenomena as cooperation, competition, and leadership.

In many of the components, but mainly in the Social-Cultural Foundations Component, the model provides the teacher with competencies in 1) adapting to readiness patterns of behavior for learning; 2) providing for harmonious social relations in classroom management; 3) deciding the relative merits of such processes as authoritarian methods of teaching; and 4) acquiring skills in social relations. Also included here are such considerations as "the language of the classroom" teacher-pupil relationships, interaction analysis, and the like.

e) Sensitivity training. A stream of continuity throughout the model is provided in the early preparation of the student in the Professional Sensitivity Training Component followed by activities described in the Self-directed Component (e.g. enabling seminars). The skills provided for in these components are essential to the attainment of the more pragmatic objectives. They are necessary to the individual's ability to make independent decisions and to arrive at problem resolution. He learns to understand himself, to understand others, to express himself, and to accept others. He should, by such training, be reasonably freed of the unreasonable restraints imposed by his own personality when he makes decisions. For example, he may recognize that classroom problems (e.g. failure to achieve, discipline problems, etc.) are not solely the pupil's fault but may be due in part at least, to his own personal handicaps. As a consequence of such training the teacher should be able to recognize his own biases and feeling and the extent to which these slant his reactions toward another person, to his acceptance of adolescent values, and even toward the content he teaches. These pervasive skills are essential if the objectives of a training program such as the one described in the model are to be attained. However, they are also the most difficult ones to attain.

Considerations Affecting the Implementation of the Model

The model provides for most of what is necessary in order to prepare teachers who will adapt, grow, and be innovative during their entire careers. It is all there and in a form that can be implemented in a practical manner. The modular approach provides for a realistic view of "course" content that is long overdue. The early involvement of the student in teaching is worthwhile. Prospective teachers are often so overwhelmed by the anxiety of facing the classroom the first month or so that they overemphasize the "technique" to the exclusion of "understanding." They adhere to it rigidly--losing forever the flexibility required of an effective teacher. This anxiety is probably one of the major reasons why students, known to the present reviewer, accept so willingly the well-meaning but unfortunate admonition of the supervisory teacher to "forget everything you were taught at the university; you are in the classroom now." The effective use of early teaching experience, the self-directed component, and protocooperation involving laboratory schools should help to eliminate such difficulties.

These features of the training program should permit the formation of coordinated school-univeristy-industrial-regional laboratory center(s) that is long overdue. Administratively, this part of the program appears to be a most innovative feature. It provides a basis for interchange that should prove to be of mutual benefit to all concerned. Thus, for example, the needs of the region may be better incorporated into the curriculum; new curricula such as those in math, science, and social studies can be brought immediately to the attention of the school for its consideration; the school can provide useful feedback on the effectiveness of the teacher-preparation training program. The resources of the several components of the proposed center(s) could provide unparalleled opportunities for productive educational research beyond those of any facilities presently available.

Another important feature of this model is that it is not a complete departure from existing programs. Thus, it would be possible for a faculty to bring the program into its college by gradually introducing modules or components into its curriculum. Nevertheless, the matter of how the model (or any like it) is to be introduced is no small concern. Until modules have been fully expanded as packaged units of instruction, implementation of the program will require concerted and continuing effort of an entire faculty over several years. (It would seem that 3-5 years would not be an excessive estimate.) Ties with schools and industry, too, will take much expenditure of time and energy before true protocooperation is achieved. The danger here is that with mobility of faculty as it is, faculty interest could waiver with the possibility that development would be aborted. The administrative organization described in Chapter XIV of the proposal provides for a safeguard against this difficulty but is not a warranty against failure.

Some General Questions---and Tentative Answers

Most of the difficulties, apparent to a reviewer of this model, in implementation of the program have been anticipated, along with evaluation of feasibility, in the Chapters XI, XII, and XIII. However, some reiteration and rephrasing of certain points might be worthwhile for purposes of emphasis.

1. Much of the success of this model will depend upon interpretation of the objectives stated for each module. This is a strength of the proposal because it means that the program is subject to interpretation and thus is adaptable to different regional demands. It is a "transportable"

program. But the need for interpretation is also a weakness since, at the extreme, a series of courses could be developed to represent the components in such a way that there would be no difference from currently established programs. Thus, the uniqueness of the program objectives (see above) could be destroyed beyond recognition.

2. The criteria for several phases of the program are difficult to establish creating a major problem for implementing the kind of evaluation called for in the plan. However, this state of affairs is characteristic of some phase of all teacher training programs. Destructive criticism at this juncture would be of no avail. The fact that this is *a model* immediately suggests it is a *plan* for preparing teachers *based upon certain assumptions* in an effort *to achieve certain stated objectives*. In a real sense it is a series of hypotheses. As the model is tried, both its weaknesses and strengths will become apparent and, in the way of science, the merits will be retained or improved and the weaknesses will be removed or modified. Similarly, we would expect criteria to become more explicit as experience is gained with the various modules. Accordingly, one would not expect the model to "look the same" as it now does after a period of time. A warning against the temptation to engage in easily measured product evaluation seems appropriate here. Such practices tend to direct the program toward the development of "convergent" teacher behaviors and thereby defeat the purpose of the model. It would be desirable if the merits of the program could be based on objective measurement such as adaptiveness, self-directedness, expressiveness, professional competence, and the like. The reality of the situation, of course, is that valid measures of such objectives are just not available. Whether or not the desired objectives are attained will have to be determined on the basis

of "considered opinion" and impressions. This means there will be differences in opinion, among professional educators, regarding the merits of certain components or of their constituent modules. Some modification is, accordingly, to be expected and should be accepted when the proposal is tried by other institutions.

3. The question has been raised, "Suppose an adaptive teacher is developed, that is, one who has gained a degree of independence and capability in making decisions, will he be able to adapt to the typical autocratic school?" The answer is, of course, "Probably not, at least not entirely." But this does not mean "the baby should be thrown out with the wash," or that we should prepare inflexible automatons to present lessons to children (a ridiculous example, of course, intentionally exaggerated only for emphasis). Where societal or educational change is desired, and desirable, a flexible independent teacher can make considerable impact from many viewpoints. At first such impact will be slight but as more teachers become trained in this manner we can expect the degree of impact to increase at a positively accelerated pace. The impact of teachers on such matters as curriculum development and school policy is impotent in today's schools only because teachers have not been taught to act otherwise.

4. Can the model accommodate the large number of students to fill the teaching needs of the society? Another way of asking this question is whether the model is economically feasible. The reader of the proposed plan will recognize that an inordinate amount of faculty time and faculty with highly specialized (and in small supply) skills is demanded. Scheduling students through the program will be time consuming, as will the requirements for individual experiences, evaluation, advising, seminars, and

specialized teaching experiences. The model places a great deal of emphasis on high-cost instructional methods and settings, a feature that could lead to its rejection by universities which are attempting to provide low cost instruction through TV teaching, CAI, etc.

However, this reviewer submits that these problems can be overcome if participants will make an effort to reduce the costs. For example, module-lans that have been tried and found to be effective can be shared. Some modules lend themselves immediately to programmed instruction by CAI or other automated teaching methods. (This point is undoubtedly being considered as part of a feasibility study.) In addition, other teaching methods, often ignored at the college level, could be explored. There is the possibility that advanced students could actively act as organizers of modules for less advanced students; they could act in certain advisory and tutorial capacities if carefully supervised; they could act as assistants (not clerks) to supplement the work of the fauclty as part of their training---especially in the fifth year.

5. Does the module notion really permit flexibility? In an important sense, modules do permit a great deal of flexibility. As already indicated the "module is the unit." Several modules can be arranged in many different ways to provide unique sequences. Ideally, they could be the basis for a "grammar of teaching" by providing rules by which the units can or cannot be combined. However, they can also be restrictive: The mere labeling of a module will prevent it from being modified. If found to be faulty it may be rejected outright as a package. More importantly, many modules though appearing as separate from all others (e.g. conceptualizing the language and logic of instruction) may not be recognized by the indiscriminate reader as

being continuous with all other phases of instruction. In a truly functional program the objectives of such units should be experienced in the context of all other modules. Nonetheless, it is recognized that a more deliberate attempt to get this idea across to the reader would complicate the present proposal. Its separation as a module assures its inclusion.

6. Does sensitivity training create a problem? The inclusion of this component appeals to the present reviewer and is in accord with his own views. Nevertheless, he has some qualifications about its general applicability to teacher training programs, though by no means is the intent to disqualify its inclusion. The effectiveness of sensitivity training has rarely been demonstrated on other than subjective grounds. The criteria for evaluation are elusive. Furthermore, there are differences in the capability of "trainers" which, in turn, may have important (but unidentifiable) effects on "trainees." One may also question whether effective (trained) personnel can be found for all schools who decide to adopt the program. (Perhaps a traveling instructor will be the answer here.)

7. It should be apparent to the reader that the present reviewer is impressed by the potentiality of this model. Therefore, it is believed the model should be given every opportunity to become adopted and implemented. The questions to be raised here are: "Does the plan communicate?" "Does it have appeal?" The answer to the first question is that it does communicate once the reader becomes familiar with the terminology.

In answer to the second question the answer is "probably not--at least not an awful lot more than other programs do." This is not a difficulty with the model itself but with getting readers to make more than superficial judgments on the basis of superficial impressions. Any two-volume report tends to lack "charisma." They can be sound and straightforward, but often they are pedantic. They are often written for "_the_ profession."

Unfortunately, the members of "the profession" are, like other humans, subject to the appeal of the metaphor, the analogy, the well-turned phrase and the subtle nuances characteristic of the "soft-sell" so often necessary for initial acceptance. Accordingly, it is suggested that, if at all possible, at least the contents of the summary and first chapter be rewritten as a separate synopsis, with the intention of focusing on its unique characteristics and in a manner that will appeal to students wanting to know about the program as well as to those who will be involved in protocooperation. This is an essential step for it provides some motivation to the reader to go further, although it won't assure that he will.

Then, at the other end, upon adoption of the program, there should be channels of communication to publicize the effective modules, components, administrative details; there must be ways of keeping the program going; and there must be provision for feedback on which to base a program of modification if the best program is to evolve.

REACTIONS TO THE OVERALL MODEL

by: James K. Duncan

I was asked to critically review Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers from the viewpoint of a generalist but with particular concern for the broad curricular aspects of the program. This I have done in the remarks that follow here.

The first person is employed throughout the presentation to emphasize the fact that this is one man's view of a very complex and highly sophisticated proposal. I should also point out that I acted as one of the very many consultants to this project and I am, therefore, a somewhat biased observer. This bias I have tried to guard against.

General Review of Rationale and Program.

I was tremendously impressed with the overall quality of the program. It is a realistic program and yet one which proposes to move teacher education forward on nearly every front where past programs have appeared to me to bog down. There are many innovations proposed here, support systems, protocooperation, self-pacing, self-directed study, etc. Each of these seems to me to be a valiant attempt to chart a new direction in teacher education or to surmount in some new way an old and persisting roadblock to better quality teacher education. The easy way out is to propose that such innovations cannot be hammered into a practical program in teacher education. These are still responses to the challenges teacher education faces today and I find the proposal responding realistically to these challenges. I am unable to turn their proposal off with some reference to "pie in the sky". Difficult to implement, yes; impossible to implement, no!

I find the basic assumptions to be sound. I am referring to the assumptions of (1) pluralism in teacher education, (2) the pervasiveness of change and the need for self-renewing teachers, (3) the intent-action feedback-process model as the basic model for coping with change, (4) that self renewing teachers are more likely to be products of self-renewing programs, (5) that self-directed teachers must be educated in a program that recognizes and accomodates their uniqueness, and (6) that protocooperation is the proper name for the inter-9nstitutional game that must be played in effective teacher education. (pages 1-4)

I am not sure how many teacher educators buy these assumptions at the gut level and maybe more important how many departments of elementary education or colleges and universities can accept and function under these assumptions. The writers of the program have, nonetheless, made the assumptions clear and proposed in addition that a program geared to these assumptions must reward those willing to accept and work within the framework of these assumptions.

It appears to me that they have called a spade a spade and it is up to the adopter to come to grips with these assumptions. How many can and will I have no way of knowing. As I see it the two most difficult for some individuals to take will be the assumptions of a pluralistic reality in teacher education, and the intent-action-feedback-process model for coping with change. The one most difficult for institutions will clearly be the protocooperative assumption.

The rationale for the model has begun to fit me like an old and comfortable shoe. Because I participated in some of the discussions connected with the rationale I must admit that this has not always been the case. Ross Mooney is fond of an expression which says a conception will not always "stand still" for you and it takes a good deal of insight sometimes to get a conception to "stand still". The sense of transactional relationships between organism and environment which are continually forming fresh fittings in creative transformations would not at first stand still for me. Somehow the dialogue on the project rationale, especially with Jack Hough, and a harking back to my own conception of the prototype of dynamic research (The Vermont Story) brought the rationale into focus and steadied it. I see it now as a steady guiding conceptualization for my own day-to-day work in curriculum and in teacher education.

My only question about the program rationale as written are does it communicate? and for how many people will the conception "stand still"? These are not idle questions because a good deal of what makes it possible to accept the basic assumptions of the program rest in the capacity of the reader or user to relate these assumptions under the umbrella of some rationale acceptable to himself.

The rationale provided in Chapter I appears to me to be broad enough and sufficiently functional to accommodate the assumptions underlying the model program. It nevertheless needs to be challenged to determine to what degree it does, in fact, properly accommodate the assumptions and provide for their functional application to teacher education. And, I would guess, there are other rationales which will accommodate the assumptions acceptable and develop his own rationale for conceptualizing and working with the program's assumptions.

In summary, then, I am comfortable with, indeed happy and excited about, the assumptions and the rationale underlying the program.

Curriculum development is not only possible in such a theoretical framework but is inevitable for those who truly live out the theory in practice.

The seven components of the program are seven rich mines of human educational experience. Were I now to go through the programs as proposed I would, I believe, be more self-directing, more capable of perceiving new alternatives, more capable of making decisions, resolving problems and taking new courses of action. I would know a great deal more than I presently do and behave much differently. The program would be a strenuous one but an exciting one for me or for the capable undergraduate.

The components and the program as a totality blend theory and practice and sequence both of these in a relevant and highly sophisticated manner. It appears to me that the writers have taken the individual student as the measure of the program and applied that measure continuously throughout. If, for example, he has the abilities required of a module he does not take the module. If he doesn't make the module on the first try he can be branched for correction or take the module again. He participates in an extended self-directed experience.

There is, of course, no perfect sequence of theory, or practice, or theory and practice. To use the individual student as the measure of each module of the program is to develop the sequence as you go. What they have proposed as a hypothetical sequence of modules appears to me to be sound and if it is not it will rapidly correct itself if student performance is the measure of the program.

I believe the reader is probably aware of all of this but let me say in passing that this is a radical view of curriculum sequencing. Most curriculum sequencing is based upon some notion about the sequencing of ideas in a discipline or some pattern of formal organization of experiences. The self-pacing and self-directing characteristic of this program is a radical and healthy departure from standard sequencing practices.

With respect to the general quality of the program and its sequence I find the program to be rich in quality, an excellent blend of theory and practice, and sequenced to a large measure in terms of individual student abilities.

Curriculum Scope

At different points in the overall document the writers refer to knowledge, skills, feeling states, understanding, attitudes, values, etc. In discussing the scope of the program let me use knowledge as the basic unit of my discourse with respect to the cognitive realm. Let me use skills as the basic unit of discourse with respect to the psychomotor realm. And, lastly, let me use feeling states as the basic unit of discourse in the affective or emotional realm.

I am aware that these uses of the terms do not coincide with the writers' uses throughout the document. The Social Cultural Foundations Component, for example, discusses the question of what one means by skills and refers to the "skills of language analysis and logic". I have no quarrel with this use of the term skills. There are likewise "skills" associated with the observations of children and the taking of interaction analysis. I am simply using the term in a different way.

The program proposes to develop knowledge, skills, and feeling states in such a way that they can be effectively applied in a changing world. With respect to knowledge I find a full complement of objectives and instructional activities directed to the acquiring of and the use of knowledge in live situations. The same is generally true of realm of skills although I find here little attention to non-verbal communication and the skills that accompany that aspect of reaching and working with others. More about this later.

What disturbs me most with respect to scope in the program is that the development of a wide range of feeling states and then more critically their application is implied in the document but rarely made explicit. Few objectives call for the direct application of feeling states (love, fear, hostility and their derivative feelings) to live situations.

Repeatedly I found that the outcomes involved with feelings were expressed in terms of "describe", "critically appraise", "evaluate", or "discriminate". Although it seemed clear to me that many of the instructional settings would surely elicit feeling responses on the part of the students there was little or no direct reference to the deliberate use and application of feeling states in the objectives of the modules.

I submit that this is the inherent hang-up of college professors. The world is cognitive and rational to most of us. The world is to be dealt with in cognitive and rational ways. And because it is this way to us the programs we devise to help people deal with the changing world are heavily oriented to the rational and cognitive. The tremendous power of feelings to help one effect change and to help one respond to change are ignored or under-developed.

I find this difficult to express because I, too, am a college professor but let me try by a number of illustrations to point to what I am trying to say.

The power of the late Martin Luther King to initiate change and respond to change lay in large part in his capacity to mobilize and apply feeling states. I believe he had a good cognitive and rational command of the "world" of his concern but he harnessed feeling states to pull the load when effecting change.

Let me quote a speech(1) of Donald Bourgeois, Associate Director of the Urban Coalition, in which he is trying to tell what of his experiences have made a difference.

> It all started in 1963 when I sat down at the head of a classroom and looked across at 30 bewildered black faces. These I had been told were "hard core disadvantaged youth, out of school and out of work". These were the youngsters society had given up on, the youngsters who had dropped out or been kicked out of school, the youngsters for whom a fast car and an easy sex life were the norm. These were my charges. For twelve weeks we 31 human beings lived together. When they laughed, I laughed. When they hurt, I hurt and when they cried, I cried. We became as one. Some afternoons, I remember, we'd all sit around in a circle and I'd start by saying to whomever was on my right, "I like you". Then he or she would turn to the next person and say the same thing, "I like you". (page 1)

And 14 pages later he says:

> Thus, the experience which taught me most was the one which began with those 30 outcasts I came to love and respect. (page 15)

The Scenario in Chapter 10 of the project report refers over and over again to critical events in the lives of the hypothetical students of the program. Most of these involve the management and application of feeling states. In the real life situation the students will find it helpful to be able to "describe", "critically appraise", "evaluate" or "discriminate" with respect to feeling states. But it seems to me to be more to the point to teach them how to express their feeling states and harness their power in the resolution of the problems of change.

If these examples have made clear what I mean let me return to curriculum talk. The program is deficient in scope, as I see it, because the expression and application of feeling states is not specifically taught for. This expression and application of feeling states is a probable by-product of the program but I would suggest that the adopter needs to teach directly for it (specify it in his objectives) if he truly expects it to be an outcome.

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(1) A. Donald Bourgeois, "Chartering New Directions for Curriculum Research and Development: The School in Contemporary Community". Address delivered at the Ohio State University. November 22, 1968.

I am aware that the Professional Sensitivity Training Component, the Self Directed Component and the Social and Cultural Foundations Component deal with feeling states. And I am aware that these are marked advances over traditional programs. I still feel that students can be taught to feel and utilize the power of feeling in much more direct ways than have been proposed both in these components and in the others.

Earlier I said that I would discuss a deficiency in the skill area relative to non-verbal behavior. It does seem to me that the model program focuses on the verbal dimensions of communication and this despite the fact that it plans extensive utilization of video tape.

I don't know in entirety how the writers planned to analyze the video tapes and possibly what I am about to suggest is a part of their plan. Nevertheless, a whole new world of communication is opened to he who studies a video tape with the audio portion tuned out. The world of the elementary school child is profoundly influenced by non-verbal cues. Charles Galloway suggests that when the chips are down and push comes to shove the non-verbal communication cues decide the question. Our behavior speaks louder than our words.

Our professorial and research world runs on verbal communication. This is the way we see the world and the way we work with it. For the youngsters Donald Bourgeois was working with, the words "I like you" were meaningless until checked out in terms of non-verbal behavior. I feel the same is true for elementary school children in many, many instances.

I would, then, suggest the adopter give consideration to the systematic study of and practice in non-verbal communication. This kind of communication is, I believe, crucial to effective elementary teaching.

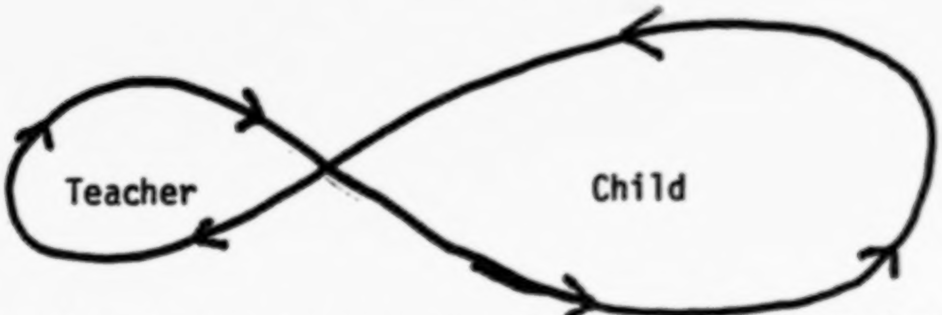
The program will utilize extensive technological innovations in the training of teachers. I do not find in the program any systematic effort to teach these teachers how to use such technology in their own classrooms. To be the master of the influence of technology in education the teacher needs to be master of those technological innovations that are invluencing education. He must see these as the tools of his profession and be able so to utilize them.

Except for the area of feeling states and their application, the skills of non-verbal communication, and the mastery of educational technology I find the scope of the model program to be excellent. I have tried to suggest that these are areas of weakness and briefly defend why I feel that they are too important to be left to chance learnings. Objectives should, I believe, be developed to focus in directly on such outcomes.

I have one further concern and as with the matter of feeling states I am going to have some difficulty in communicating what I mean.

One of my children (Jeff) and I got to talking one day. He was going on four, I guess, and we were discussing God and Santa Claus, where they lived and wouldn't it be fun to go visit them. In the course of the conversation it became evident that they both lived up in the sky and the real question was how we could go to visit them. Jeff proposed an immediate and insightful solution. We could go over to Schelds (neighbor) and borrow their ladder, get the saw out of our own storage room, put the ladder up, cut a hole in the sky and go visit God and Santa Claus.

Now that is a kind of experience with a child which the model program may or may not provide as presently constituted. The program tends to train the future elementary teachers to be sensitive to children in systematic ways. I think I see a need for more spontaneous interaction with children -- a need for indwelling in the child's experience -- a need for more of this in respect to the prospective teacher's relationship with children.



To illustrate what I mean in operational terms if each student maintained an ongoing relationship (say weekly for a year) with a child (from a foster home, orphanage, etc.) in which he was just responsible for being a significant other in the life of the child the student could probably learn what I am asking that he learn. He would become sensitive to the child on the child's terms and would learn to behave spontaneously rather than systematically.

I don't know which component this belongs in. Regardless, what is at stake here is the learning that comes from spontaneously relating to a child on his own terms. I do believe I would plan for it and provide the structure which would encourage its happening.

Curriculum Evaluation and Other Considerations

My next concern deals with curriculum evaluation. I like very much the whole support system approach and found these chapters very rewarding. I should like to raise a question which occurred to me as I studied Chapter 13, "Information and Evaluation Support System".

Allow me two quotes from the report.

> The objective of process evaluation is to detect or predict, during the implementation stages, defects in the procedural design or its implementation. (quoted from Daniel Stufflebeam) p. 482.
>
> The continuous sequence of trial-revision interactions is aimed at the successive elimination of defects in the program and an increase in its effectiveness. p. 485

The question I wish to raise is:

Does program evaluation focus most of its attention on uncovering defects and correcting them? If it does, then it seems to me that the evaluation will tend to miss what it is looking for. What we really want to know is what made the outstanding teacher outstanding, what made the program have a profound impact on the student, what made for success.

Now, if I fully know the specifications of a quality product I can focus on the defects that impair the quality of the product. If I don't know the specifications of the quality product I need to focus not only on the defects but also, and most importantly, upon what it is in the system that seems to generate better quality products.

My notion of curriculum evaluation is predicated on eliminating defects _but also on finding the better characteristics, better processes, and better products_. The systems approach, drawn as it is from areas where quality product specification is reasonably clear, may function more to determine failures than successes. The question, then, is does the evaluation focus equally strongly on successes as contrasted to failures. Is it characterized by a marked quality of serendipity?

My last concern is a general one and can be simply stated. Does the program with its organizational support system provide the student with enough leverage? He has a "newsletter", he has "organizations", he has a self-directed component and enabling seminars, and he has open modules but I am uncertain at this point as to whether these would add up to enough power so that he could truly effect the program as a corporate entity.

I have no direct suggestion to make here, although others may have. I see the student set down in a program of great power, one that is dedicated to having profound influence on his life. I see elaborate and complex systems being developed and run to render good service to him. I think I'm afraid all of these may overpower him. I should like to see the student have the real means and the real power to "kick back" at the program and have a significant effect.

I was asked by the authors "to tell it as it is". I have tried to do this from one man's point of view. I personally think that this model program is outstanding in quality, realistic for today's teacher education, and represents a fantastic achievement by those who developed it. The program can really bridge from today into tomorrow successfully. And there is nothing I believe is more important in teacher education today than successful bridging into the future. We are in deep trouble unless we do.

REACTIONS TO THE OVERALL MODEL

by: William R. Hazard

Model-building is a high-risk enterprise in any field; in teacher education it's almost suicidal. No matter what the outcomes, some critics will dismiss the whole scheme with one or more professional put-downs.

Model-building and testing is vital to the development of rational, relevant teacher preparation and should be a high priority to universities and schools across the country. To do less will confirm programmatic tradition and piecemeal tinkering as the change mechanisms in teacher education.

This critique attempts to view the model as a whole and raise some questions about its generalizability and feasibility. Such questions may be useful to institutions in their deliberations prior to adopting or adapting the model or its components.

Several components in the model deserve brief but special mention:

a. Self-pacing, individualized instruction and student self-direction are long overdue in teacher education programs. What are the implications for staff-student ratios? The first two elements depend on adequate pre- and post-test instruments and procedures. Can such needful devices be developed to support the elements? Unless these assessment devices are created, we may discover that the model prescribes remedies for undiagnosed ailments.

b. Flexible programming of tasks, knowledge input, experiences and attitude development (or expectations) encourages the tailoring of program to individual needs.

c. Students participate in extended clinical work under the direction and supervision of capable, committed teachers and teacher trainers. The key issue will be: can we identify, recruit, and train such clinicians so as to insure worthwhile clinical experiences. The students' time is limited; we cannot waste it in low-output activity.

d. The intent-action-feedback-evaluation process breaks new ground if it can be accomplished. Although many teachers and educationists claim to use this process, candid self-appraisal would suggest the opposite. The channels for feedback and student reaction to our teaching behavior are dangerously clogged by false issues of teacher-pupil status, defensive mechanisms, near paranoia about pupil discipline, academic standards, a mid-Victorian reward system in our schools, and a host of instructional and administrative barnacles quite irrelevant to teaching and learning. If teachers function on partial or filtered feedback, their evaluations become pedantic and pointless. If we control the feedback news about our teaching, we create an unreal teaching world. The Syracuse model has the potential to drag teacher preparation into reality and

e. The model's fresh and honest reappraisal of liberal studies in teacher education is long overdue. There is some danger, however, that we lay reason at the throne of liberal studies without asking "what's the pay-off to teachers?" Few of us would quarrel with in-depth mastery of teaching content; we might insist, however, that liberal studies justify their eminent position by making a

> discernable difference in teaching behavior. Professional educators seem to suffer from an overdeveloped tolerance for underdeveloped assumptions.

The following comments and questions were generated by specific components or parts of components. Brief quotations from the two-volume document are stated; longer references are cited by page number.

1. The model states that teachers' goals are to parallel program and student goals (p. 10). Unless staff members are carefully selected and oriented, the desired parallelism is unlikely. In fact, until a new crop of "behaving" and "becoming" teachers come out of the pipeline, staffing the model program will be a serious obstacle. The M.A. and Ph.D. types currently available are not apt candidates for the desired behaviors or goals.

2. There appears to be some conflict regarding pluralism in the rationale. Page 17 states "The model is an open model capable of accomodating and working constructively with all diverse views as can be expressed in terms of (a) purposes or ojectives...". Page 10 states "We have made one further assumption; that is, that the goals we hold for students in the program we also held for their teachers and for the program as a corporate entity. _These goals must be one and the same for all_." This conflict should be resolved prior to implementation. Further, one might ask if this claim of pragmatic accommodation to plural "realities" constitutes a premature cop-out to the task of conceptualizing optimum behaviors, learning environment, and teacher-student-pupil relations rather than differentiating the optimum and the undesirable.

3. What exposure to a teaching career does the model permit or encourage prior to the junior year? Are there risks in focusing on liberal studies exclusively during the first two years? Can the mind and spirit be liberated in courses and experiences germane to a profession or must we perpetuate the liberating act in abstractions? Is the decision to focus on liberal status in the first two years based on evidence or is it the payment of academic I.O.U.'s?

4. The process goals for the liberal education component are laudable. Are we presently able, however, to assess students' growth, perception, realization, feeling and decision making? Unless we develop such measurement devices and techniques, product assessment likely will prevail over process assessment. It's easier, cheaper and much safer.

5. The goals of the professional sensitivity training component are less than clear. This lack of clarity is compounded by the nagging suspicion that "awareness of self as a person is the fundamental goal..." approaches dangerously close to tautology. Explication is sorely needed to remove the nag.

6. I must commend the decision (page 24) to delay the in-put of social and cultural foundations until "...after the students are past the initial anxiety of assuming responsible teaching assignments." Social-cultural roots mean very little in the abstract, and considerably more in concrete social and cultural settings familiar to the students.

7. The "self-pacing" concept is a commendable goal if enough of it remains after threading the students through the academic cogs. One persistent problem experienced by college students is the segmentation of

experiences in the academic milieu. Narrow specialist-professors rarely teach in broad, general strokes. If self-pacing is in fact the goal of the program, care must be taken to encourage independent thought and initiative by students throughout their tenure in the program. Related to this caveat, I fear for the future of these "behaving-becoming" teachers prepared through the model. What provisions can be made to re-educate administrators and supervisors in the schools to minimize their cross-purposed impact on the teachers produced through this model? My fear is that, given the reality of the present power structure and the exercise of that power in public schools, negative administrative and supervisory behavior can rapidly undo much of the positive preparation. So far as new teachers are concerned, the forces to encourage accommodation far outnumber the forces which encourage change or modification in the organization.

8. The notion of protocooperation among colleges, schools, and the education industry is intriguing; the achievement of it, however, in my judgment, is not too likely. The triad arrangement proposed seems to assume several conditions: (a) allocation of appropriate human and material resources to the enterprise, (b) split allegiances by the participants to the mother institution and the new corporate entity, and (c) an effective environment for teacher preparation. Whether or not the conditions assumed can be created through the protocooperation entity is a serious question. How can we induce the three existing entities to contribute requisite financial and human power to this new entity? If teacher education cannot obtain the necessary resources under existing arrangements, will a new paper chart or some kind of alchemy change these reasons for the present short-change operation? Personally, I doubt that the new entity would

command or get such resources. Perhaps we need to consider added leverage to encourage this protocooperation. It might help, for example, to clarify the mutual benefit to the parties charged with the teacher training job. By careful explication we might demonstrate that schools benefit from involvement, that universities benefit by improved product, and that students benefit most of all from a more rational, relevant, and effective scheme for teacher education. Further, it might help to encourage state and federal sources to require some kind of protocooperative involvement as a condition to granting funds for public education, teacher education, or education in general. In other words, no cooperation - no money. Certainly a case can be made for the mutual interest of government and school systems in teacher education to justify such control measures to insure rational and effective use of scare resources for teacher training.

The corporate integrity of this protocooperative structure raises another question. How does the proposed corporation differ in purpose or spirit from the old normal schools? By removing the responsibility and accountability for teacher preparation from both the universities and the schools, aren't we encouraging both institutions to wash their hands of any real involvement? There is real danger that such a corporation would excuse, if not justify, both entities to pull out effectively from their responsibilities. If teacher education, as presently organized, is not worth a serious commitment by schools, universities and the education industry, I fail to see how the creation of still a new corporate structure would enhance its worth to the very institutions which supply the expected resources.

9. The model recognizes that students in the tutorial and microteaching center can provide useful assistance. I applaud the model for its

plan to use students' talents in the schools in ways profitable to the students, the pupils, and the schools. To treat able, committed young adults as supernumeraries rather than valuable resources in the schools is indefensible myopia.

10. The self-paced program makes much sense; I am not sure, however, that it's feasible when large numbers of students are involved. Further development of the model is needed to insure a flexible, individually planned program of courses, experiences, seminars, and the like; and this problem necessarily is compounded by sizable numbers of students in any potential adopting institutions. Somewhat related to this, on page 84, the model notes that students deficient in a given subject area will be assigned prescribed tasks of remediation. I am not clear as to who prescribes, assesses and approves these remediation tasks. The administration of self-paced programs can be a nightmare when large numbers of students are involved.

11. Panel teaching, as described in the liberal education component, deserves to be tested. We should accept the fact, however, that coordination and integration of the panel effort must precede the teaching. There are precious few examples of professors coordinating or integrating multi-disciplinary courses, and I suspect that we will kid ourselves to think that such panel effort will be coordinated or integrated as a natural phenomenon. I suspect that if this coordination and effective panel teaching comes about, it will be the result of some hard thinking and hard conversations among the several professors involved. Far too many professors don't talk to each other within the discipline, let alone integrate their thinking with other disciplines.

12. On page 88 we find the following statement: "If elementary school teachers are to be both effective and self-directed, then they must have a liberal education." In my judgment, this statement begs the question and need not be included. I do not quarrel with the inclusion of a strong dose of liberal studies in the elementary program, but I don't think that sentence or the last three paragraphs on page 88 do anything positive for the total rationale. I would hope that the careful reader simply forgets that material and lets the model stand on its merits.

13. The role relations among professors, clinical professors, and supervising classroom teachers for assessment and determination of student competencies are not clear. Someone or some group must ultimately decide on assessment and competency of prospective teachers. I believe the model glosses over the difficult task of student assessment. Related to this concern, I note that the modules indicate pre- and post-tests to determine the students' immediate future tasks. Who administers and evaluates the tests, and is such administration process at the individual's own pace feasible with large numbers of students? The curriculum modules exemplify this problem particularly well.

14. The time demands on the students seem to be unusually high. This may be illusory, but it might be helpful to sketch out in the model the schedule of work for a student's typical quarter or semester. I must also ask if the time estimates are realistic. For example, on page 182, the open observations skills module requires five hours of student time, 0 faculty time, and 0 clinical professor or clinical teacher time. But in Part 6, subpoint 1, pre-test, and subpoint 5, post-test, and subpoint 6, remedial conference with professional staff members, there are indications of time demands on faculty. This does not constitute a substantive objection to the model; merely a plea for consistency and realism in the

planning for adoption of the program.

15. On page 13, the model describes a component dealing with the psychoanalytic theory. This material alarms me. My fears turn on the possibility of students learning just enough of psychoanalysis to become dangerous to themselves and particularly to their pupils. This component needs some explanation. Is there danger that the component encourages latent and professionally frustrated pseudo-psychiatrists? This multi-component program, at least in written form, creates a nagging feeling of detached, somewhat sterile, unrelated elements, each intellectually defensible but in total somewhat detached from the human element. How are these many experiences to "mix" by the student? How can the students avoid the feeling of intellectual and emotional hopscotching as they move through these several components?

16. Have criteria been established to assess the relationship between the component modules and effective classroom teaching? What provisions does the model provide for establishing evidence to support the infusion of the several component models? I am particularly interested in the basically one-shot experiences such as those in the professional sensitivity training component. These segments may become surface experiences with little or no framework for assimilation by the students.

17. The model does not clearly indicate how a meaningful study of teacher values and pupil norms can be studied. Before such study can be done, normative behavior and value patterns must necessarily be conceptualized. The model does not indicate when or where the students develop this skill. The same question applies to a number of the modules, including PST-5, Teacher Role, Behavior, and Style. I am not clear as to the philosophical underpinnings of these kinds of components.

18. This model has an unusually large number of modules for the students in a pre-service program. One might ask if it is necessary to include all the PST modules in the program. Might some of these, such as PST-7 on page 10 better be developed in the first years of teaching? Unfortunately most of us seem to assume that we must produce the complete teacher prior to the first teaching job. I suspect that we might be attempting far too much in the four or five years of pre-service preparation, and that many of the elements could better be handled through in-service development in the teaching role. Until we are reasonably certain that the in-service programs do develop teaching competency, I suppose we will continue to insist on teaching everything that we hope the students learn prior to attaining a master teacher status.

19. On page 318, the first paragraph ends with a question begging interrogative. To argue that social-cultural foundations are necessary to compliment mere technical skill and to produce the complete teacher, and then admit that "it does not.........lead necessarily to the acquisition of technical skill - but what does?" strikes me as unnecessary defeatism. I would contend that there are many teaching experiences which do in fact lead to technical skills. And to opt for social-cultural foundations as a professional compliment of technical skill, and then to beg the question by claiming that even if it doesn't, nothing else does, is a rather silly posture in an otherwise sound program of planned development. The self-directed component, described on page 410 and following, seems to be a key element in developing mature teaching skills. This component is a real strength of the program. The goal of the component (value development and self-directed learning) is properly the overarching goal of teacher education - indeed, for all education. This self-directedness should permeate the entire program and not be limited to a component.

20. Related to this component is the question of the price that one must pay for the facilitation center. This center would seem to be a high-priced support system and I would like to know the number of teachers served, whether or not it would be a multi-district or consortium effort, and how it would relate to the staff-teacher ratio. The entire question of economic feasibility undoubtedly will be studied closely prior to the program's adoption.

21. The Syracuse model claims that interactive problem solving behavior is an essential part of the organization and the individuals will receive satisfaction from being a part of this program structure. Although this is a laudable goal and one probably realized in the model, what expectations does the model raise in its students, so far as their teaching environment in the first job is concerned? Does the model presuppose that the built-in reward system will foster satisfaction from being a part of the organization, and that this satisfaction will be sustained in the probable world of the beginning teacher? I hope that the students completing this model are not unduly dismayed to discover that the rewards system in the real world of teaching may be substantially less supportive than that in the model.

22. Chapter 14 aptly describes the current obstructions to university-school partnerships for teacher education. The divergent goals and professional orientations in schools and universities clearly demonstrate the desperate need for protocooperation. Indeed, the divergent goals of universities, schools and the education industry may preclude the implementation of this model. My primary concern is the crucial place occupied by the corporate programming; that is to say, the creation of a new corporate entity seems to be the sine qua non of this

model's implementation. I am not optimistic about the creation of the new corporate entity. My concern goes to the feasibility, therefore, of this model. The low commitment to teacher preparation aptly described in the program rationale at several points, may well be the obituary of the model unless the corporate autonomy is achieved. Unless program autonomy and corporate structure is achieved, it would seem that the components in the model are quite unlikely to happen. There is some potential, however, for adoption in that the program is designed to accommodate intermediate organizational structures. If in fact a corporate program is not established, the probability of which is much lower than the probability of the program's implementation by a university-school joint effort, then I believe that the maintenance and adaptive substructures can play a decisive role in making the model work.

The two creative elements in the model may be its most vulnerable characteristics: (1) the notion of protocooperation among schools, universities, and the education industry in teacher preparation and (2) the rather complex programming of modules and time and processes. In my judgment, this model will work, but only if adapted to something less than full protocooperation as described therein. I believe it would be a serious mistake to create a new entity - call it what you will - to carry the responsibility for training teachers. By so doing, I fear that the schools and the university will feel that they no longer have a basic commitment or responsibility for teacher training, and that this new entity will starve for resources, both human and material, that are so desperately needed in teacher education.

The complex programming will undoubtedly be modified as the model predicts, through continual assessment and analysis of experience in implementation. Few can quarrel with the basic content in the model, but I am sure a close analysis of student response and faculty roles will reveal an overly structured, unduly complex and highly unlikely system of modules, tests, tasks, feedback, and their complex interrelations.

The model is a good one. The authors were indeed honest in their recognition of the need for feasibility studies and for further development through pilot runs and careful analysis prior to claiming great things for this Model. It is much easier to criticize than to create, and the authors of the Syracuse model should feel a great sense of pride and accomplishment in the mammoth task undertaken and successfully completed. The problem of making this model work will rest on those institutions with the courage and the commitment to attempt it.

REACTIONS TO THE OVERALL MODEL

by: Leon Ovsiew

As a "generalist" consultant I have chosen to comment about these features of the report to which I had some special reaction. I have not commented on most sections of the report, because I accept and admire them. My general reaction, in fact, is to be mightily impressed by the quality of the enterprise. It is a great job of planning and curriculum-making, and I would repeat myself endlessly were I to comment on each section. I believe it to be feasible of adoption, too, but that cannot be asserted until some additional work is done.

I have included a few generalizations at the end of this critique which may make up a little for the scattergun approach I have used. In any event, it has been a privilege to study the report, and I am enthusiastic about it, except for a point or two noted below.

The Assumptions

Of course there are more than six assumptions "underlying the structure of the model;" the six made overt are merely those which are consciously chosen and construed to be the most pertinent. Nothing is said about the assumption that a teacher needs formal education to be a teacher, though the world is full of successful teachers who are not so educated. It is not specifically noted, either, that state certification standards are, in the main, honored in the structure of the model, though many of these standards have been and are being questioned. And nothing is said about the administrative structure of public education or of school systems, though nothing is in more need of change in public education then its administrative structures.

Some metes and bounds are necessary; one cannot take the whole world into account in discussing a part of it, even though one knows well enough that the whole world does have its effects on each of its parts. But it may be useful nonetheless to be more candid about what this model accepts as either good, and worth keeping, or bad, but impossible to change. I've mentioned three such, but more will occur to any reader, surely.

With this caveat, then, any model-makers' assumptions are theirs, which is to say that no one can quarrel with another's assumptions, except to say that he does not accept them; that being his right. For my part, I can accept these assumptions without demur without necessarily commi-ting myself to either their applicability or precision. But I can also say that I would make many more explicit assumptions about the world in which the model is expected to work. One more example will, I hope, make the point: I would assume that this model will make some university faculty obsolescent, that some faculty will not be able to either accept the model or accommodate thems-lves to its rigors.

The Rationale

A. The "behaving and becoming" concept, like Plato's Being and Becoming, is one of those unassailable concepts whose simplicity hides its power. The "perfectability of Man," the capability that educational experience has to convolute the brain, "in God's image" religiosity, are all expressed in this rationale. It's a wonderful faith, and who is to gainsay it? It may all be true.

But one may still be permitted to believe that organizational role structure may be a more immediate and a more forceful determinant of role behavior than the quality of a teacher's intellect, spirit and dedication.

I see a legitimate conflict between the concept of a teacher who is a "change agent" and one who is himself self-renewing and thus dynamically current in an educational world which is changing. These are not the same. I can express my doubts about the validity of ascribing the change agent role to teachers by asking, how will teachers relate to an emerging sophistication of the planning function in education? Protocooperation granted, can teachers hold back the tide of specialization which is finally beginning to roll in on the education world?

If I extrapolate what I see as the trends, I see a teacher who helps pupils prepare for a changing world more consciously than he ever has. I see a teacher who more consciously than he has prepared himself for accommodation to change both as a person and a teacher. I am profoundly distrustful of an educational world in which the teacher is expected to produce major educational change ideas. That's the old world, the mythological world in which "grass roots" is treated as fact rather than metaphor. That's the discredited ASCD world of education in which teacher committees glorify themselves. That's the world that talks about leadership without defining it or understanding it or believing it. That's the world that so derogated curriculum that others in another world had to rescue it and raise it to some height of recognition and respect. Teachers are not change agents, they haven't been change agents, and they ought not to be change agents in any brave new world, either.

Obviously, this is not to argue that the teacher has no role in changing the educational world. But it does not seem to be accurately defined in the model, and I think it should. That role ought to be much different from the confused nonsense of either typical current practice or, say, the Ole Sands' version of the ideal educational world.

Teachers must work in a system, and a system requires organizationally specialized roles for the people who work in it. Systems are not immutable, of course, but no system can be devised to divorce power from decision-making. Unless one postulates a true democracy in which all decisions are made by the majority of the members of the organization, powers must somehow be delegated to decision-makers who hold such positions, such roles, in organization. Changes are decisions, even little changes such as teachers can and do make. But they do not, and I'd venture, cannot make the major decisions in large systems certainly or even in small ones. Leadership is a functional role, and specialized in all but the most primitive organizations. No one knows of countervailing power limit the authority and leeway of decision-makers, surely, but the specialized role remains an operational fact. To speak of each teacher as a change agent is to deny reality, and while reality is subject to change, this reality of system is not changed in the model. It would be better to try to define the arena in which teachers should and could be agents for change.

B. Though I do not wish to spend words on kudos, I must say how applicable Mooney's concepts are to the model, and how apt and helpful is the intent--action--feedback process model itself. The component "systems" of the model are also sound and reasonable.

The Program Structure

A. The concept of protocooperation has everything but experience to recommend it. It is entirely rational, of course, because institutions should act in their self-interest, but as chapter 14 explains, there are lots of current reasons why they do not. Moreover, there would likely still remain the irrational motives for acting differently: mistrust, individual against organizational objectives and goals, pride, priority, and above all, power. The truth is that something more than cooperative agreements would seem to be required to make a "corporation" possible.

It is an interesting and complex question of organizational strategy that the model raises, but does not really explore in strategic terms. Short-term accommodations for brining a "model" program into being in some places may well be possible, but a permanent state of protocooperation--a "corporation"--needs some new, as yet unknown organization. The question of feasibility turns on the ability to invent and maintain such a new organization, for the uneasy agreements to cooperate for project purposes which currently exist in education give no promise of endurance or effectiveness. (The figure on p. 33 illustrates the concept of protocooperation, but not its organizational form. It does not "solve" the corporation problem.)

B. The modular program of instruction and the new forms of clinical practice delineated for the model are, in my view, profoundly better than any existing conceptualization of teacher education. The planning for the instructional program is very impressive. No doubt many College faculty will be persuaded to adapt themselves to the discipline. But many faculty will be fearful and distrustful of the demands of the new model. Some will not be able to adapt, even if they wished to do so. A change of the magnitude the model describes entials great personal risk for college faculty. Any college wishing to adopt the model--or any radically new teacher education program--must face up to a casualty rate among its faculty, especially senior faculty.

The problem of change is basically risk, personal and institutional. Anyone who has pondered the low adaptability quotients of colleges--Paul Mort used to say that the fifty-year lag for the public schools was more like a hundred for colleges--must be impressed with how fiercely professor defend their prerogatives. Professors are specialists who own their courses and who, understandably, believe in them and reject the risks giving them up incurs. Some will, of course, if the "trade" is right, but many, most quite likely, will not give up the very essence of their academic achievements for the relative anonymity of team-teaching. The model makes the program greater than the professor and his courses, and that makes his risk very great. The adoption of the model program will surely cause some casualties, then, and must raise administrative dilemmas of the first magnitude for deans and presidents, to say nothing of faculty senates. Indeed, there is little chance of adoption in most colleges because that kind of decision must be made by faculty, not administration.

The fact of casualty rate must be faced, if any significent change in teacher education is to occur, of course. It will be faced first in those teacher education institutions which, for some reason are able to absorb the risk with the least trauma, or the ones in which solutions to the casualty problems can be devised. Quite likely as is the case typically in the public schools, the best colleges will be the first to adopt radical change models, for reasons which Paul Mort and his students long ago described.

The forces against change are rarely inertial, I believe. On the contrary, it is rational for people to protest their self-interests--even if they are "bad"--against the threats implicit in change--even if the change is "good." A strategy for coping with the forces arrayed against change would seem to be necessary; something more than dissemination of ideas and places, something more than communication. Ideas do not make their way automatically, nor is just enough force to overcome inertia enough. I would hope, therefore, that when the feasibility of the model is analyzed and judged that there will be a strategy for adoption described.

Liberal Education

One of the stranger ironies in teacher education is the way knowledge has to be defended. Teaching expertise has never been, and can never be, anything other than a way of marrying content and process for transmission through some form of communication. In spite of the fact that knowledge is the primary product with which teachers deal, it seems always to be necessary to discover the wonder of it anew every time a teacher's work is described. Indeed, there have been aberrated times in teacher education and in teaching when knowledge was virtually dismissed as irrelevant in favor of such inanities as "life adjustment and like emphases on the other aspects of growing maturity which accompany educational and physical growth. It isn't necessary to be a "basic" educationnik or some other kind of faddist to accept the simple fact that learners must learn a body of knowledge and that teachers teach a body of knowledge--as well as other things, including values, feeling, attitudes, etc. So why all the fancy defense of the obvious fact that teachers must know subject matter?

Unfortunately, there is an ambivalence in the explication of the liberal arts portion of the model. Speaking of the liberal arts component of the program the report says, "The goals are, therefore, predominantly process goals; transcending ignorance by acquiring new ways of perceiving, realizing, feeling, and deciding rather than the product goals of knowing anthropology, physics, religion, etc." Later on the report partially contradicts itself by saying, "It is expected that the successful completion of the student's liberal arts program and the Liberal Education Components courses in the humanities, the Natural Sciences, and the Social Sciences will give the student sufficient foundation upon which to base his understanding of elementary curriculum content. It is, therefore, imperative that students have competency in various subject matters of the liberal arts." Were it not for the curriculum-making skills the model emphasizes for teachers one could dismiss the ambivalence about liberal arts as being of little moment. But it is, really, of the greatest importance.

I believe the model to be in serious error in ascribing curriculum-making responsibilities to teachers and in devoting so many modules to teaching them how. (It is the only major conceptual principle on which I am in complete disagreement with the model.) I believe that in the new educational world now slowly building curriculum must and will be made _for_ teachers, not _by_ teachers. Teachers need certain curriculum-related skills: choosing, evaluating and using. They should never any longer be trusted to make curriculum. Certainly, no teacher whose subject matter expertise is as rudimentary as that produced by this model program could be so trusted.

I see a teacher as an actor interpreting and reading others' lines, not as a writer. There is great talent and skill in being an actor, in being able to interpret and create a role, but it is not the writer's role. If we have learned anything in these last ten years, it is that curriculum-making is a scholar's business, however much he may need a teacher to provide the process aspects of the total work. Subject matter selection and synthesis requires knowledge in the greatest measure. Teachers can never be expected to be more than amateurs in scholarship. Teachers are expected to be expert in the process of teaching, and that's specialization enough.

The knowledges a teacher needs are substantive, as well as the processes of the disciplines, because only educated persons should be trusted to teach. And that's reason enough why liberal arts-knowledge- must be a major part of a teachers education program.

Problem Resolution Model

One of the more useful concepts in the model stresses problem and conflict resolution as a major means for teaching and living. The applicability of the problem resolution process is probably universal. Certainly it is basic to the practice of school administration.

Back in the Joe McCarthy era in American life. James Spinning, then the Rochester (N.Y.) superintendent, told an ASCD audience that the purpose of a good education was to equip people with the tools for identifying McCarthy as an unAmerican demogog. Besides courage, Spinning demonstrated that he knew that the uses of education were in problem resolution. And this model does set out to teach this way!

Modules

How does a module differ from a lesson, if you remember that old terminology? Only in sophistication and discipline and maybe specificity is the module an advance over those old lesson plans teachers used to be taught to write. Not that these are small advances; indeed, they are major steps toward a science of teaching. Behavioral objectives alone are an advance of encouraging magnitude. No doubt, if teachers could be thought to think of their lesson planning according to the discipline of the module, the gain in teachin power would have to be significant.

But now think what it means to teach the professional portion of a teacher educational program in a modular plan; no more of those "what'll I talk about today" lectures, no more of those "unstructured" class discussions that used up the time so "democratically," no more of those "student committee reports" that treated major ideas with superficial ignorance. But most of all understand that those who set out to build a model teacher education program have in fact built a curriculum. And what else should they have done; isn't curriculum the education program and must that not be planned rather than left to chance? Odd that the impeccable reasoning which built the modules would have teachers do less for their pupils. The program that does not trust each professor to build his own curriculum--as is so wise--trusts elementary teachers to build their own.

Evaluation

The essence of an improved educational system is planning, I believe. And planning begins and ends with evaluation. There is no need to flog the obvious deviciency educational systems, especially colleges, show in their evaluation protocols. It may not be too much to say that in some colleges no evaluation of their products or process has ever occurred, until some federally-funded program required it.

The chapter on the evaluation support system is vital to the program, and it ought to be emphasized.

Feasibility

Tests of feasibility were not required of this report, but of course the report intends to present a feasible model. Feasibility estimates, I understand, will be funded as a next stage of the project, but a few observations about the feasibility of the model may be worth noting, anyway.

Feasibility criteria--cost, personnel capability, casualty rate, probability of achieving protocooperation, space, appeal to students, etc.--are not only numerous, but more difficult to measure without field trial than may at first appear. But there is one major feasibility analysis that can be done.

This model is so good a job of planning that a Planning Programming Budget (PPB) can be built for it, needing only some additional decisions about resource and space allocations. The advantage of a PPB are that it defines and measures behavior against dollars--insofar as that is possible with human behavior. It may be that no test of feasibility is more fundamental than the dollar test simply because the easiest defense against change, whatever the real reasons, is additional cost.

The ordinary question of dollars is raised against the context of current spending experience. There are built-in constraints of spending which are conditioned on perception of reality rather than product. Reality in expenditure is always defined as current experience, a little less or a little more. If this were the test applied to this model, it would fail of feasibility; it's cost, though I cannot now say what it would be, must be considerable greater than current teacher education expenditure.

But this is a model for a different product, and it is only by assessing its feasibility in product terms that its dollar feasibility can be honestly appraised. A PPB is the first means for doing just that.

Summary

The following are some generalizations which appear to be relevant:

1. The comprehensiveness of the program planning is remarkable. Despite an occasional and minor lack of consistency, due no doubt to the number of writers who composed sections of the report, there are few questions left unanswered.
2. The assumption of "pluralism" as a reality, and determination to maintain an eclectic rationale for planning, results in a model which does have both flexibility and a pragmatic stability. I confess to an original disbelief that such a coupling would be

possible, but I believe that it has been achieved.

3. The module quality is uneven, but generally very good. I doubt that the expressed intention to think of these modules as merely samples will be observed. I predict that most will be adopted, and that by many colleges which will not adopt the whole model.
4. The management system for the operation of the envisioned program is hard to assess without trial. I do have some doubts about the system as it stands, but I have no better one to suggest in its place. In any event, management systems are evolved rather than created.
5. The primary impact the report makes upon me is that education is beginning to move into a next phase of development. It seems clear that the predicted science of education is not only possible, but is actually beginning.

REACTIONS TO THE LIBERAL ARTS COMPONENT

by: Thomas F. Powell

Goals

On first consideration, this teacher education program seems to include an inordinately small liberal arts component. For example, prospective elementary school teachers in this institution presently take ninety-two of a total one hundred twenty-eight credit hours in the arts and science division. On examination, however, this first impression seems attributable to a certain ambiguity of purpose in the program.

On page five, for example, it is stated that "the Liberal Education Component is designed to provide the student with a large measure of the knowledge and processes that, when translated into the language of elementary school children, become *that which* the teacher will teach to children." In short, the impression is created that the prospective teacher's "substantive" preparation is centered in, indeed nearly included in, the first two years of liberal education. But this is not the only kind of goal stated for the component. On page twenty-one, for example, there appears the statement that "The goals are...predominantly process goals; transcending ignorance by acquiring new ways of perceiving, realizing, feeling, and deciding rather than the product goals of knowing anthropology, physics, religion, etc." But again, on page 75, "The substance of the Liberal Education Component synthesizes the liberal arts in a manner which enables prospective teachers to know or to know how to master 'the what' of teaching."

Similarly, on page 88, the assertion is made that "If the future is uncertain, and if people learn attitudes, and if elementary schools play an important role in the development of attitudes, then it becomes requisite that elementary school teachers engage in activities which encourage dispositions toward self-directedness and self-awareness. This is, in part, what the Liberal Education Component attempts to do." But on page 75, it is flatly stated that "The Liberal Education Component is not professional educationl."

I would suggest that all of us involved in liberal education and teacher education have too long and too emphatically pointed up some putative differences between the two which may in fact be quite illusory, and that this fact underlies the difficulty here encountered by the planners of this teacher education program when they define the liberal education component of it. Attitudes, values, and habits of mind certainly are learned from teachers, and they are learned now as they were learned in the days of Plato: by example. The teacher is a "change agent," as on page 28, whether he or she would be or not. This implies, unmistakably and unequivocally, that a very significant part of teacher preparation is developmental education: it is education for personal development, the education of models for youngsters.

Liberal education is, since time out of mind, what Aristotle called the work of realizing the self, of actuating the ethical will. It is work through the levels of becoming, or entelechies, culminating in integrity: the condition of being an integer, a one, a self or person. This work toward self-realization, Socratic knowledge, paideia, results in the intellectual and moral capacities for honest, self-directed inquiry: that is its chief fruit. I would submit that such liberal education is professional education in the case of teachers. I would further suggest that the self-directed work incorporated into this plan for teacher preparation is liberal education. The apparent ambiguity of purpose here is a problem of language and convention: the goal is preparation of cultivated, sensitive, self-propelled teachers who are lifelong devotees of liberal education -- which also happens to be their in-service professional education, and vice versa. In sum, I think that this plan highlights the arbitrariness and the folly of conventional distinctions between liberal and professional education. That transcendence or liberation from narrowness and ignorance referred to on page 21 is indeed what the teacher needs to be capable of: he needs to be liberally educated in order to teach by example how to be liberated, and whatever program can enable him to do this is at once his liberal-professional education. I wish I could see some way of getting rid of the habit of distinguishing between them. Perhaps the structure holds the key.

Structure

On page 22 it is explained that the Child Development Component is "not constructed along course lines," but is "modular in construction." The student's work is organized along thematic or conceptual patterns. With regard to the Liberal Education Component, some attempt in the same direction is made through the three two-semester core courses, as summarized, for one place, on page 35.

I would simply say that the liberal arts (in conventional terms) work of these prospective teachers should also be entirely modular in structure. Let's not couple an advanced professional preparation technique to an antiquated liberal arts approach! I would advocate a complete experimental college kind of approach to this teacher education plan, and I am convinced it is feasible to develop one. For example, the freshman-sophomore liberal arts curriculum developed in the Experiment for Higher Education at Sourthern Illinois University, to which I am a permanent consultant, is modular in structure. It fits with the kind of professional preparation here proposed inestimably better than does the orthodox departmental-disciplinary organization, and I shall make sure to put it into Mr. Martel's hands.

Dr. Green's position on pages 74-5 seems to me not at all directed against the liberal arts, but against the arbitrary way in which instruction is organized in our institutions. The liberal arts are not "restrictive": anything but. It is this kind of misunderstanding, I think, that emerges in the kind of destructive distinctions and oppositions suggested on page 76. The question is asked, "How is the Liberal Education Component different from liberal arts and professional training? It is different in that it provides....an emphasis on the development of the individual as a whole person....the inclusion of the natural sciences and the social sciences as well as the humanities....an interdisciplinary approach to the humanities, social sciences, and natural sciences." At least the first two of these three quoted characteristics would have to be included in any definition of liberal arts education; and in this context, I should think it imperative that they also be included in any definition of professional education for teachers. If liberal and professional education are not setting forth and accomplishing these goals, it would seem more appropriate to fault the quality of our endeavors than the kinds of education themselves.

Other Comments on the Liberal Arts Component

I find the three courses, humanities, social sciences, and sciences, described on pages 78-84, completely unrealistic, and the social science section hortatory. I will not labor the point that they attempt far more than any such courses could hope to accomplish, because I shall, as noted above, suggest an alternative to the whole component. But some questions which come to mind are: Who would teach these core courses? Who will inaugurate them? What of the faculty assembly, senate, or whatever? Who empowers the "policy board"? (p. 85) Is this really a proposal to go back to teachers colleges?

These huge topical areas are not "disciplines," as they are identified on page 85.

I reject the distinction between "substance" and "methods" as imputed respectively to the liberal arts and professional training on page 78. (Cf. pp. 4, 21, 37, 75.) Is it any longer necessary to use such terms? I feel certain this plan will be better carried out if they are abandoned.

Conclusions

"What is essential to the model is a new way of conceptualizing teacher education that proposes to develop a teacher education program and a 'new breed' of professionally competent, appropriately self-directed teachers who will not be anachronistic in the year 2000." (p. 34) I agree and applaud. The trouble with this model, in terms of its objectives, from an arts and science point of view, is that it is not revolutionary enough. The arts and science or liberal arts aspects of it need to be revolutionary too. And the more one considers that, the more difficult it becomes to escape the conclusion that this is the point at which the distinctions customarily drawn between liberal and professional education must be recognized for what they are -- atavistic carry-overs from an educational history that has its regrettable side -- and dealt with accordingly.

The description of work in social-cultural foundations on page 316, "an extension of liberal or general education for professionals in education" (emphasis added) seems to me close to what I would find most attractive as a characterization of the whole program.

The goals of the self-directed component (chapter 9, pages 410 ff., especially 411-12) are preeminent goals of liberal education generally, and illustrate my central contention. I was also struck by the implicit acceptance of this in the remarks of the gentlemen who spoke at Syracuse. Frank DiVesta said the question is how to make teachers aware of revolutionary cultural contexts, social, technological, and so on. Bill Hazard said that the prospective teacher's studies should make a difference in behavior, including the liberal arts work making a difference in teaching behavior; and that the self-directed training is crucial. Kelly Duncan said the whole humanity of the student must be taken into account. These are all, I would insist, goals of education, whether it is called liberal or professional. But as long as we call education one or the other under the impression that we are describing some fundamental differences, we only delay the time when we produce better teachers and better men.

REACTIONS TO THE METHODS AND CURRICULUM COMPONENT

BY: Elizabeth Z. Howard

Anyone seeking to respond critically to a proposed model for teacher education must first of all clarify for himself the definitions and criteria he will use. This clarification is particularly necessary in a critique dealing with a Methods and Curriculum component.

Methods as a term in teacher education has too long meant a proliferation of "courses" designed to provide prospective teachers with specific teaching skills in each of the subject-matter areas. Curriculum, similarly, is too frequently assumed to be something written down, something predetermined, that tells teachers what content children are expected to "cover" and in what sequence. Neither of these conceptions is a satisfactory one in relation to teacher education today.

Perhaps the most useful way of clarifying the criteria for "methods and curriculum" is to substitute a single term, teaching strategies. Strategies are more than methods; they are built on knowledge, both the knowledge of oneself and one's learners and the knowledge of content or subject-matter. Strategies of teaching take into account the uniqueness of teaching style, the individual learning needs of pupils, the interactive dynamics of classroom groups, the availability of materials including media, and the social forces that demand relevant responsiveness. How, then, can a teacher education program provide experiences through which each student may develop appropriate teaching strategies? This appears to be what the Methods and Curriculum component is all about.

How does this component in the Syracuse model for teacher preparation help students develop appropriate instructional strategies? What are its strengths? A number of them seem to stand out:

a) the problem-resolution model as the basis of the component;

b) the idea of programmed self-instructional material for strengthening a student's background in the major subject areas;

c) the strategic importance given to diagnosis of individual learning needs of children as an essential element in teaching;

d) the emphasis on alternatives and decision making as students plan teaching strategies; the requirement that choices be relevant to specific objectives, to particular children, to particular content;

e) the provision for students to learn to analyze both teacher behavior and pupil interaction in instructional settings; the use of simulated materials, clinical teachers and student partners to assist in this analysis.

The basic rationale contained in the problem-resolution model seems to say: students need opportunities to approach their own learning in ways that can also be adapted to children's learning. Problem identification and resolution-seeking will make students aware that there is not just one best way of dealing with a problem, but that the alternatives are multiple and dependent on many factors. Students are likely to discover, also, the value of continuous evaluation (feedback and feelings, as well as measurement) as part of the problem-resolution model.

Another strength found in the problem-resolution process is the self-directed, as well as self-paced, nature of the student's learning. He is not handed a "bag of tricks" or a compendium of "right methods". Instead, he must make some critical decisions in the selection of materials and procedures for his own learning, just as it is hoped he will expect children to do in their learning.

Within the Methods and Curriculum Component, a student has some opportunities for self-sequencing of the modules, though perhaps even more of this could be allowed. (Doesn't sequence depend as much on one's own perceived need for a particular learning as it does on the prior completion of some other "logically-ordered" task? It would be interesting to see what sequencing would be employed by various students if such freedom were allowed within the component.)

The development of effective teaching strategies depends on subject-matter competency. Frequently assumptions are made that students, as a result of work in liberal arts courses, have internalized a basic understanding of the major disciplines. These assumptions often turn out to be false. While learning in the disciplines is for all of us a lifelong pursuit, nevertheless the prospective teacher must have a ready and basic fund of information and a clear grasp of concepts in the various subject-matter areas. The provision in this component for students to strengthen their content background seems to be a guarantee that students will at least become aware of their own subject-matter deficiencies and will remedy them through available programmed instruction. These basic modules, (CM 1.1 through CM 1.6), should also help students to be aware at the start of the Pre-Professional Junior Year that individuals are indeed unique in their extent of knowing, but that this uniqueness is valued and provided for rather than punished.

This attitude toward individual uniqueness in both prospective teachers and in pupils seems to permeate the Methods and Curriculum component. It is reflected in the emphasis on diagnosis of children's learning needs (an area which is frequently omitted in teacher education programs) and in the modules concerned with analysis of teaching behavior. It is emphasized throughout the problem-resolution model, with encouragement to students to develop their own unique teaching strategies and to increase their grasp of concepts and skills in all the subject areas. Individualization is not easy, for it depends on tremendous breadth in materials. The proposed program can only be implemented if the recommended materials (simulation packets, video tapes, pre and post tests, etc.) are available.

What are the weaknesses or points-of-concern in the Methods and Curriculum component of the Syracuse teacher education model? Just three are initially apparent:

a) the delaying of direct experience with children (tutoring) until well into the Pre-Professional Junior Year;

b) the (over) dependence of this component on some of the other components, and the accompanying possibility that the built-in concurrence may not occur;

c) the too-structured nature of the final module group in the component -- curriculum planning.

None of these weaknesses is irreparable in the total model. Each of them can be remedied in a number of ways.

Logically, the placement of tutoring after students have had some experience in developing specific teaching strategies may make sense. The real concern here is the delaying of some kind of direct experience with children. Would it not be wise to recommend (or require) that each student find a child and become his "special friend" over a long period of time prior to the Pre-Professional Year? A friendship of this kind might indeed include some tutoring, but it would also provide an opportunity for the prospective teacher to test out his own way of relating to a child, to learn something about adult-child communication, and to become aware of how a child thinks and feels and behaves and wonders. After an experience of this sort, the teacher education student would surely be more ready to plan appropriate instructional strategies for the more formal tutoring episodes.

It may be that a one-to-one relationship with a child is built into one of the other components of the model. But today, when college students are increasingly volunteering to work with disadvantaged children, it seems quite likely that any student committed to becoming an elementary teacher will already have availed himself of such experiences. Consequently, it seems unrealistic for the Methods and Curriculum component to postpone students' opportunities to deal directly with children in trying out their developing competencies as teachers.

Learning appropriate teaching strategies is dependent not only on subject-matter competence, but on other knowledge and skills as well. Strategies depend on knowledge of oneself, of one's comfortableness with particular teaching styles. They depend on knowledge of the competencies and self-concepts of a particular learner or group of learners, both as developing individuals and as group members playing many roles and seeking many need-satisfactions. They depend on skill in selecting and organizing situations that will facilitate children's learning. These dependencies complicate the task of the Methods and Curriculum component. Learning to formulate appropriate tasks for and with pupils cannot be done properly without a real grasp of many understandings that are included in the other components.

Theoretically, the model takes this into account. Functionally, it must work! Deliberate attention will have to be given (by faculty teams, probably) to the ways that students integrate their learnings from the various components.

Perhaps the enabling seminar can help students do this for themselves.

However, its purpose (as described in the Self-Directed Component) appears to be somewhat different, and it appears not to include faculty members in its operation. Perhaps the clinical teacher working with the student will be the person primarily involved in helping the student with his "bringing-together" of learnings from all the components. At any rate, such integration should not be left to chance.

The final section of the Methods and Curriculum component -- curriculum planning -- is an interesting one. As the authors point out, this topic is rarely included in a teacher education program. Appropriately, its modules differ from the other modules of the component; perhaps they should differ even more -- specifically, in their "openness" to the specific situations encountered by individual students in the resident year.

It is impossible to predict those situations or to foresee the major concerns in which teachers will be involved in the next decade. Could not the specific forcus of each of these modules be identified and pursued by each individual student with help from the clinical professor? An example might be the student who is very much involved in his school's efforts to increase parent-teacher communication in a broad spectrum of ways. Another student might be in a faculty that is reorganizing the school in a new pattern, such as team teaching or nongrading or pupil self-scheduling. Could not these final modules, then, be adapted to the specific situation of the student in any of these areas, rather than being limited to "curriculum planning" procedures?

The role of teachers in decision-making about school organization, inservice education, community and political concerns as well as curriculum planning is under-going significant changes. Understanding of these changes is an appropriate objective for the teacher preparation program. The final module group of the Methods and Curriculum component seems a logical place to allow for the needed flexibility, in order to accommodate to the challenging uncertainty of the future teacher's role in educational change. If any content is to be prescribed within these final modules, it makes sense to draw it from the growing body of findings about the nature of the change process in social institutions. While it is doubtful that teachers alone can or should be "change agents" in the broad social sense, there is no doubt that they will be professionally involved in change and will need to understand its dynamics.

In summary, what have been mentioned as "weaknesses" are actually points at which further adaptations in the model appear to be necessary. It is likely that as the program is implemented, other potential weaknesses will be identified. The list of teaching competencies in Appendix A, for example, may turn out to be either inappropriate or obsolescent, although it may prove useful for some teacher educators. (The danger in such a listing, of course, is that it will usurp the central focus which ought to belong in this program to the problem-resolution process.)

A few other highlights of the Syracuse proposed program -- the Support Systems, the Facilitation Center, the Professional Sensitivity Training Component -- all seem to be significant and unique features in a teacher education program. The wide use of technology and of simulation materials further enhances the program. But these features will demand the kind of protocooperation that is described, in order that the total program may be adequately financed and properly staffed.

In terms of feasibility, the most desirable goal would be the adoption of the total program as visualized. However, a teacher preparing institution might well consider implementing some components without the others. The Professional Sensitivity Training component, for example, could be implemented as a significant addition (or prerequisite) for many existing teacher education programs.

Whether or not the Methods and Curriculum component could usefully be adopted without some of the other components seems problematic, for it is too closely related to (and dependent upon) the learnings designated in other sections of the model. However, if an institution already has a strong emphasis on both social foundations and child development in its teacher education program, it might well adopt some combination of the Methods and Curriculum component and the Teaching Theory and Practice component of this model, particularly if video tapes and problem packets were available. At least this could be an initial step, in the hope of eventual adoption of the total program including the Support Systems.

Meanwhile, any teacher education faculty could profit from a consideration of the basic assumptions (as listed on pages 1-4) of the Syracuse program. These six statements and the comments supporting them are surely worthy of thought and discussion in any group that is committed to the preparation of future elementary school teachers. A good program requires clear commitment to basic assumptions and a conceptual model for the total effort; it requires consistency between what-we-believe and what-we-do. These requirements appear to be met in the Syracuse model. The program has a basic consistency within its structure and among its components, and it provides enough flexibility for other institutions to implement it in appropriate ways. In this sense, certainly, it is generalizable and thus makes a significant contribution to the field of teacher education.

REACTIONS TO THE CHILD DEVELOPMENT COMPONENT

by: Martha Rashid

Major Goals and Assumptions

The Child Development Component impressed me as a carefully conceived response to the stance which elementary teachers must assume to be effective in the real world of children and schools as of 1968, 1978 etc. There are certain explicit goals and implicit assumptions in the Child Development Component with which a potential adopting agency must concur wholeheartedly before even considering the inevitable pre-operational adaptations of any particular program based upon the Syracuse document.

It is obvious that there must be real acceptance of the major goals of the Child Development Component. These are: (1) observing children's behavior objectively and systematically, (2) discriminating among the types of behavior observed, and (3) increasing the student's repertory for making sense out of the behavior observed. In my judgement, these are excellent behavioral objectives which can persuasively address the question: Does a knowledge of child development make any difference in how teachers behave? If faculty at the potential adopting institution construe the goal of learning primarily as the acquisition of factual knowledge, their distance from the Syracuse position is about as great as that between any bipolar positions in child development.

The major goals of the proposed component operationalize the prospective teacher's acquisition of knowledge about children in classroom settings. To operationalize is to deal in behavior. The organization of the substance of the Child Development Component is designed to mediate the behavioral objectives. With but a few lapses, an inductive approach is used. Prospective teachers start with sensory input; they order data; they move toward eventual conceptualizing as they are taught and actually use observation procedures. Throughout, opportunities are built in to encourage students to reflect upon the entire process. Acceptance of this position carries with it acceptance of the process dimensions of learning. Such a position is so recognizable that it is practically an aphorism. Although the emphasis on process, with induction as an important species of cognitive functioning, is recommended by most child development specialists for the learning of children, it may not necessarily be accepted as an effective principle to guide the organization of college level programs. This is another critical juncture in the "adopting and adapting" cycle......Is the potential adopting faculty willing to use the process approach in organizing its teacher education program?

The Child Development Component includes pre and post tests for each module, mediated situations, simulated materials, auto-instructional materials and individual work within small groups. Comments about specific materials or their use are made later in this critique. It is sufficient here simply to indicate some of the problems posed by replacing the traditional ratio of one teacher to one section of students for an entire semester or trimester with a series of self contained modules designed to permit each student to set his own pace within the constraints of a particular small group of fellow students. Beyond the initial formation of groups in the Sensitivity Training Component, surprisingly little attention in the entire Syracuse proposal is given to the impact of the small group upon the individual student. It seemed to me that both this question of impact and possible logistical chaos were brushed over very lightly. Development and production of the learning packets for each module will be difficult and time consuming. This, however, is relatively simple compared to the problems which may issue from the mandate for change in traditional views of the role of teacher educators. In the Syracuse plan the university teacher is envisioned as a resource person programmed to come in to the small groups only at occasional points in the sequence. Students, for the most part, are on their own within each carefully planned module. If university teachers are to be used as resource people their entire working time, and not just their actual teaching time, must be accessible to students requesting guidance. The question arises: What effect will this have on existing patterns where time other than actual teaching time is devoted to research, study, peripatetic consulting, committee marathons, and only occasional student advisement? The Syracuse plan changes the role of the teacher educator; no longer is he viewed as a purveyor of knowledge in formal classroom settings. He becomes a counselor, a resource person, a developer of materials, a remedial teacher on demand, a monitor of feedback mechanisms, etc. Faculty who wish to consider the Syracuse plan will wish also to examine its implications for what maybe a redesignation of their teaching role and of patterns of utilization of time.

An important assumption in the Syracuse plan is the position that ample time and opportunity are built in for specialization whenever it is desired by the student. A specialization in child development, or early childhood education, presumably would be identified first in the self-directed component; the student would work toward specialization in a more direct manner during the summers contiguous to the resident year. It was not clear to me how this would be accomplished. It seems likely that much more planning is required both for the structure permitting specialization and for the substance of each specialization available. Potential adopting institutions may well ask: (1) Is the self-directed self-directed component different, to a significant degree, from the protypical independent study courses of graduate teacher education? (2) Why is the self-directed component distinct from the other components rather than an integral aspect diffused throughout professional preparation? (3) Are not the prescription for and guidance of specialization the province of each specialty? (4) Is the generalist position tenable currently or even compatible with the "change agent" stance upon which the entire Syracuse plan is predicated? Rhetoric aside, is the elementary teacher as a generalist an adequate position vis-a-vis the realities of contemporary educational problems?

Suggested Changes Prior to Phase II

In this section of the critique, specific materials, procedures, sequencing, etc. are presented for consideration of possible modification before implementation or Phase II.

I would recommend taking a careful look at the adequacy of linking observation procedures to the variables of age and sex alone. Throughout the Child Development Component one gets the feeling that variables which vitally affect the child in an institutional setting, beyond certain developmental "givens", are not touched at all. I refer to the constellation of instructional variables which certainly interact with what may be considered developmental variables. Reserving the instructional variables for the Theory and Teaching Practice Component successfully truncates both the factual substance and the empirical processes of child development from teaching practice. It seems unlikely as a consequence that prospective teachers will interiorize the concept that child development in general and observation in particular can serve as an integral part of their teaching behavior. The foregoing is an important point which goes beyond "who teaches what". Because observation of teacher behavior and teacher-child transactional units are separated from systematic observation of children, there seems to be unnecessary replication of observation procedures and, more importantly, a real weakening of the direct contribution of child study to the teacher's modification of his behavior as it impinges upon children's learning and general development. It would appear that simultaneous scheduling may be a necessary but certainly not a sufficient condition for the student to conceptualize child study procedures as an important basis for his behavior as a teacher.

In only one module is any time given to participation of a clinical professor or clinical teacher. Again, if child development is ever to interpenetrate instructional practice, child development specialists _and_ practitioners must plan together and look at problems together albeit from diverse perspectives. I found little "protocooperation" in the Child Development Component.

It seemed to me that the ratio of faculty time to student involvement was kept quite low throughout the Child Development Component. The ratios given are simply estimates. Even so, they seemed somewhat unrealistic. Also, it struck me as unwise not to build some faculty time into the first module. Better yet the first module might well incorporate experience in a real setting as the take-off point for introducing observation as a child study procedure. As it stands now, the first module might well become a highly abstract introduction to observation untainted by the real world or a simulated version thereof.

The modules on the selected theoretical systems seemed well chosen and thoughtfully detailed in respect to objectives. I would suggest, however, that Module CD-8, the module on the relationship between theory and empirical procedures, come _after_ the theoretical systems are presented. This would seem to be more congruent with the inductive approach and would provide a better basis for examining the role of theory in research and the ways in which research feeds back into theory.

It surprised me that monitoring of the use of child development procedures in planning and carrying out instruction is not an important part of the resident year. The rationale for this is not clear. Was it felt that the modules presented were adequate to provide a permanent and comprehensive grasp of child development?

Where in the Child Development Component will students be asked to pull together what they know about theory and practice in child development? It seemed to me that the tutorial experience was excellent for initial testing of ideas and practices but that application of child development principles and procedures to group settings was missing. Throughout this component more emphasis was placed upon simulated than upon real situations. Were economy and control over the situations the major reasons for this? These are telling reasons but leave one wondering about the high ratio of simulated to real experience.

Post tests are built into each module of each component. The statement about each post test is followed by a stock phrase to indicate that those who do not pass the post test will plan remedial work with an instructor. What kind of remedial work? Going through the module over again? Nowhere in the proposal were any details given about the nature of the remedial work or its relationship to the ongoing program. Before implementation, additional planning might well be given to this point.

One of the theoretical systems selected for inclusion in the Child Development Component is that of Piaget. Such a choice is not being questioned. A question would arise if Piaget were omitted. In the Teaching Theory and Practice Component, a quite different series of categories is used, however, for describing cognitive development. I'm not at all against diverse viewpoints within a program. But it would be more consonant with what we know about learning if selected theoretical systems introduced in the Child Development Component were applied, together with others, to analysis of teaching theory and practice. Developing an entirely new teacher education program provides a marvelous opportunity for educators to act upon what have become the hackneyed phrases of curriculum yearbooks. A major payoff in effective learning can result when major constructs are articulated. I believe this can be done without compartmentalizing all over again and perhaps more effectively doing so as a result of tight programming.

This last is my final poing. (Space alone dictates this.) I saw now mechanism in the Syracuse plan for making sure that "hardening of the modules" or "hardening of the components" would not occur. Explicit channels for interchange among and between parts of the system were not apparent to this reader. It is a real tribute to the present Syracuse faculty that this comprehensive and thoughtful plan was achieved at all and communicated so clearly in the present two fat orange volumes. On the other hand, faculties change and conditions change. Elaborate support systems are great ideas but cannot prevent "hardening of system categories" if explicit channels for faculty planning and dialogue are not viewed as an important aspect of a self-renewing system.

REACTIONS TO THE TEACHING THEORY AND PRACTICE COMPONENT

by: Donald R. Cruickshank

The purpose of this section is to explain and to analyze the Teaching Theory and Practice Component. Attention will be given to the component's adequacy in terms of its: (1) rationale, (2) content, (3) processes, and (4) contributions to teacher education. Questions will be raised and suggestions offered to the potential user.

It should be established first that in the Syracuse University Plan the student would be involved initially in the TTP Component during the junior year. As in the other pre-professional components, the student is expected to move through the sixteen modules (parts) of the component "at his own rate." Student involvement in the pre-professional program primarily is intended to facilitate a career choice as an elementary teacher. Should the student choose to continue study in professional education, he would enter his senior year and work to complete the modules of each of the six pre-professional components.

The _overall_ rationale for inclusion of the six pre-professional components is elusive. The potential user will find this disconcerting. However, one should be reminded that few, if any, professional education programs are undergirded well either by logic or empiricism. When one asks for rational support for an existing program the reply more likely is emotive, remindful of the play _Man of La Mancha_ and Sancho's reply to the query of why he follows his "ridiculous" master, Don Quixote. His answer, "I don't know. I just like him!"

Ideally it should be a simple task for the potential user of the model to see the genesis of the six components arise from the statement of rationale in Chapter I. An almost "if-----then" relationship should exist. Subsequently the potential user could judge the adequacy and relationship of the suppositions to the consequences sought. Perhaps this is the greatest weakness in the whole model.

A search of the main body of the report reveals little direct justification for inclusion of the six components except perhaps the following:

> The program at the junior-preprofessional year has three purposes: (1) to introduce the student to the field of education by exposure to each of the six professional components and by so doing to begin building a repertoire of skills, understandings, feeling states and processes as a foundation for continued professional study during the senior professional and resident years, (2) to provide an opportunity to experience the field of education...(3) to assist the student in making a decision about whether to continue [into the senior year] ... (p. 36)

Each chapter begins with a rationale for the component it describes. Chapter VI presents the rationale for the component on Teaching Theory and Practice. The section describes teaching as a decision making process and notes that teachers need to develop a set of skills in order to make [better] decisions. Further, the rationale states, teachers need to have practice in projecting alternative actions, anticipating their probable outcomes, weighing the value of the outcomes, and finally committing themselves to *an* action.

In effect the rationale strongly supports the notion of the teacher as a problem solver--one who notes a problem ("the discrepancy between expectation and reality"), hypothesizes relationships, projects alternatives, tries alternatives and so forth. The "teacher as a problem solver notion" is consistent with one overall characteristic of the model "intent - action -feedback."

Further the rationale states that in order to make appropriate decisions, the teacher needs to know something about the characteristics of the child, the content or subject to be learned, materials of instruction, his own personal characteristics and administrative and community expectations.

The rationale next makes mention of using the Gagne paridigm (Conditions of Learning) and suggests that the content and processes of the TTP Component are derived therefrom.

From the statement of rationale (supposition) in Chapter VI a series of directly related activities leading to specific teaching behaviors or pupil behaviors should arise. Generally the consequent behavior sought is described as follows:

1. Discriminate between increasingly finer differences between teacher behaviors as displayed by other teachers.
2. Practice the production of samples from each class of teaching behavior in order to develop a wide repertory of available behaviors from which to draw the appropriate behavior for the immediate situation and decision.
3. Examine the range of possible outcomes of education (objectives) in terms of the skills, knowledge, and attitudes of the learners, and prepare measurement techniques to determine the degree to which these objectives are achieved.
4. Learn to interpret and apply the results of research to the effectiveness of different strategies of teaching in achieving specific outcomes.
5. Based on an increased understanding of the nature and needs of children and the subject matter taught in elementary schools, practice the decision-making skill of "searching" through his

> own repertory of potential behaviors for that strategy that would be most effective for particular pupils and specific outcomes. (pp. 224-25)

Questions which the potential user must answer if he shares concerns common with the reviewer include:

-How well grounded in logic, theory, empiricism or other is the rationale?

-What curricular experiences seem to be consistent with the rationale?

-How consistent are the curricular experiences described in the modules with the expected experiences stemming from reading the rationale?

Turning attention to content of the TTP Component, a relationship is obvious between the character of the sixteen modules making up the component and the five behaviors expected of students appearing above.

Ability to discriminate teacher behaviors is a function of modules 1 - 4. In these modules the student is expected to learn to make increasingly finer discriminations among teacher behaviors. The Syracuse module gives attention to the systematic study of teaching behavior in several other modules. It might be preferable for the user to combine these related experiences some of which may be found in Methods and Curriculum (e.g. CM-10), Professional Sensitivity Training Modules (e.g. PST-4, 5 and 6), and Social-Cultural Foundations (e.g. SCF-10 through 15).

The second outcome sought, "practicing the production of each class of teaching behavior..." is really a function of process employed rather than content itself. The TTP modules do require students to demonstrate alternative teaching behaviors which is consistent with the intent-action-feedback characteristic of the total model.

Models 5 through 8 attempt to get at part of the third set of student behavior i.e. "examining the range of possible outcomes of education (objectives) in terms of the skills, knowledge, and attitudes of the learners..." Each module deals with general classification of educational objectives or specific subjects a la Bloom. Again better coordination with other components would reduce overlap (e.g. Curriculum and Methods -4).

Coordination of TTP-9 has been done more successfully and relationships are made evident with several modules of other components.

Elementary Statistics for Teachers (TTP-10) would appear to need coordination with Interpretation of Standardized Achievement Test Results (CM-5).

Module 11 - Research on the Effect of Teaching Behavior on Students bears a direct relationship to the fourth set of terminal student behaviors i.e. "Learn to interpret and apply the results of research to the effectiveness of different strategies of teaching in achieving specific outcomes." The module implies that a good deal of firm research data is available for interpretation. The potential user will need to have this data identified for him or locate it himself. Lack of direct reference to specific research, technology, and other leaves the potential user with a good deal of work to do before any module can be implemented. Although the programmer was aware of resources and studies related to full development of the modules they have not been made apparent to the reader.

The remaining modules 12-16 all seem to be related to the accomplishment of the fourth set of teacher behaviors (testing the effectiveness of different teaching strategies for different purposes).

Questions which the potential user must answer with regard to content can include:

- -How consistent are the outcomes sought in the modules with the expectations eminating from the section(s) on rationale?
- - Where the outcomes may not be supported in the rationale can a rationale be built for those experiences?
- -How much overlap exists between modules in this and other components? How can several related components be identified and perhaps unified?
- -How internally consistent is each module in itself. How well related are the modules one to another?
- -How well does the module provide for individual differences in students?
- -How much work would be involved to put the module into operation?
- -What would be the cost in terms of people time, module support, materials development and so forth?

A third concern of the review and analysis is process. Perhaps the most striking change between the Syracuse model and present programs is the attempt to implement newer processes and technology if not always the content intended to accompany some of them (e.g. microteaching). Among the processes used in TTP are independent study, small group activities, simulations, field observation and participation, use of video-taping.

Pervading all the modules is a fairly well-established formal procedure of pretesting, independent study, involvement (often tutorial), provision of feedback (via videotape or through simulation), post-testing, and remediation if required. Dependence upon this strategy of learning for all students may be providing less in the way of individualizing approaches to learning than is desirable or, in fact, suggested by the model developers. Perhaps alternate learning processes should be made available for students with disparate learning styles. A corallary question is raised following the previous section discussing content.

Questions the potential user may ask related to process include:

- How well have the developers employed processes suggested by Gagne or others relating to conditions of learning for each type of learning intended?
- What provision must be made to motivate students as they engage in a module study?
- How effective will the general learning process suggested (pre-test, independent study etc.) be for all students. What alternatives are available?
- How well are the behavioral outcomes defined?
- How well are strategies described?
- How can students be kept in small groups and yet keep the self-pacing characteristic?
- How can students be prepared to utilize the media of television?

The Syracuse module seems to make several contributions to teacher education. Among these are (1) use of newer technology, (2) application of newer teaching techniques and strategies including simulation, micro-teaching, and self-pacing instruction, (3) adaptation of newer content and so forth. The model represents not so much a revolution as a streamlining. With more adequate time for preparation it would have been possible to make the model even more internally consistent and useful.

Positively more could be said about the utilization of behavioral criteria, pre and post-testing procedures, and utilization of the "intent-action-feedback" system.

In all, the model and the TTP Component have much to recommend them.

In summary, the user will need to be able to answer certain questions about both the total model and the Teaching Theory and Practice Component. The questions relate to the soundness of the rationale, the appropriateness of the content and the adequacy of the instructional processes. In addition he will have to be concerned with ease of implementation and cost. The latter considerations may or may not be answered as institutes choose to pursue the development and implementation of the Syracuse plan.

REACTIONS TO THE PROFESSIONAL SENSITIVITY TRAINING COMPONENT

by: Norma Fields Furst

It would be easy to spend several pages of this review merely praising the excellent efforts of the Syracuse team in writing the teacher education model. Praise and plaudits, however, are really unnecessary. The final product stands very well for itself and does not need me to speak for it. Further, the magnificent reviews of Professor Duncan and Ovsiew should help any prospective developer to envision the positives and negatives in any attempts to implement the entire program.

It is, therefore, sufficient for me to suggest that everyone read the reviews of the two gentlemen and for me to echo a few of their comments as they relate particularly to me area of concern, the Professional Sensitivity Training Component. I shall also attempt to outline some suggestions for implementing this segment including some words of support and some words of caution for those interested in it.

Dr. Duncan wisely spoke of a need to make more explicit the objectives of working with students' feeling states and in helping teachers learn to express these emotions in a congruent manner. It is indeed to his credit that Dr. Duncan is able to recognize and verbalize a concern which has for so long been neglected in teacher preparation. In truth teacher educators must concern themselves with "humanizing a human". It is a strange paradox, but one which we may no longer ignore. We cannot assume that our "human" students will perform "humanly" or "humanely" when thrust into the role of teacher. It is encumbent upon us to help them develop and express their humanity.

Industry, whose ultimate product involves dollars and cents, has for some time recognized the importance of sensitivity training for the effectiveness of its employees who produce its products. It is about time that teacher education awoke to the potential of sensitivity training to increase the effectiveness of its employees, teachers.

I believe that PST 1 "Increasing Awareness of Self as a Person Through T-Group Training" and the subsequent experiences as part of the Enabling Seminars can do just what Dr. Duncan is asking for. It is unfortunate that the behavioral objectives for "humanity", "empathy", "trust", "congruence", etc. are so difficult to write. They are all implied in the Professional Sensitivity Training Components but should be made more explicit by those who wish to develop the model.

Developers might most profitably spend time determining their own criteria measures for the sensitivity component. In this area they need to concern themselves with the measures of module effectiveness if terms of student behaviors in the group itself, in the classroom as teachers, and finally, in pupil behaviors in classes taught by "trained" teachers.

The entire area of T-Group training needs to be thoroughly aired by any faculty interested in implementing the Syracuse Model. A thorough study of the aims, processes and goals of sensitivity training needs to be undertaken. For those who have had T-Group exeriences or who have worked with students who have had these experiences no convincing is necessary. They surely recognize the experience as being consistent and congruent with the Intent-Action-Feedback Process Model.

However, college faculty members, as rational beings, do not always respond favorably to this type of "emotional" training. Their concerns are legitimate and should be dealt with openly and fairly. A faculty must make not only a rational commitment to this type of innovative training but also an emotional commitment as well.

Another word of caution is certainly in order at this time. There should be a deliberate attempt to train or to find T-Group trainers who are able, in fact, to perform on the "here and now" level and have the skills emphasized in PST-1. This type of training is not therapy and deliberate safeguards must be sought to employ personnel who are "in tune" with the objectives of the module and are not aiming towards psychoanalytic overtones. Here again careful outlining of behavioral objectives as criteria measures would help ensure appropriate training methods.

It would certainly be ideal for a faculty to have appropriately trained personnel as part of its staff. However, a lack of such persons should not make an institution shy away from incorporating this valuable experience into its program. There are many highly trained and skilled leaders who may be hired to either handle the modules themselves or to train existing staff in T-Group methods. The National Training Laboratories also provide many opportunities for staff or individual development in this area.

Industrial and government experience has shown that many different types of "sensitivity" training experiences may be necessary for people who are involved in contacts with members of pluralistic societies. I should strongly urge adopting institutions to consider further amplifying this type of training with groups made up of mixtures of people from various backgrounds. It may not be enough to have students and faculty participate in groups with peers; it seems a necessity to have other experiences of this nature in which students interact with school personnel, community people, etc. The Enabling Seminar seems the appropriate setting for this. A deliberate structuring of various sensitivity training experiences with plural groups is but a further and necessary step if true "protocooperation", "self-renewing" and "self-directing" are to be both processes and goals. Here again criteria measures of student behavior in the groups as teachers and in terms of pupil behaviors in their classrooms should be developed.

I admire the modesty of the Syracuse writers when they state, "We do not know what form the future would, its societies, and institutions will take..." It is refreshing not to be beseiged by clairvoyance. However, I do believe that not only present experience but any short or long range view of the world of education must take two areas more into account than does the present model...community involvement in the educational world and the teacher and technology.

I should like, therefore, to see more attention paid both in the Sensitivity Training Modules and in other sections of the report to learning to work with community people and the resources of various segments of communities.

Teachers also need to learn how to most effectively evaluate and use the products of the technological revolution with which we are involved. The Professional Sensitivity Component might make a real contribution in this area if it were to develop additional modules which would allow students to become sensitive to their own psychological problems with working with machines and technology and to help teachers deal with the pscyho-sociological problems of the interface of pupils and machines.

I believe that the Professional Sensitivity Training Component may also make a positive contribution in filling the void mentioned by Dr. Duncan in the area of non-verbal communication. I should like to see adapters consider non-verbal communication in their T-Group sessions, as part of PST 3 - "Classroom Social-Emotional Climate" and as part of the Teaching Theory and Practice Component.

A viable alternative to this suggestion is the building of modules specifically designed to attack the problems of expression, congruence, etc. of non-verbal behaviors. The work of Hall, Galloway, Birdwhistle and Schutz should certainly be considered for adaptation and/or inclusion.

An examination of the modules incorporated in the Professional Sensitivity Training Component indicates that the writers have given careful thought to the most important experiences and learning for a teacher education program. I have nothing but admiration for the flow and scope and for the suggested activities, materials and readings of these modules as a separate component. All are excellent. I am, however concerned about the best mesh or interlocking of some of these modules (PST 5 - Teacher Role, Behavior and Style and PST 6 - Teacher-Pupil Interaction) which teach a method for systematic classroom observation and build behavior training as part of the activities with modules TTP 1-9 which deal with specific teaching behavior. Page 38 appears to have the latter group coming during the junior year with the PST modules being suggested as senior year experiences. However, pages 302 and 306 suggest the PST modules be taken during the junior year.

It is difficult to know which sequence would best accomplish the objectives. Work at Temple University and Ohio State University seems to indicate that teaching the student to systematically observe and record classroom behavior before he attempts to control his own behavior and then using systematic feedback to analyze his behavior in simulated situations leads to effective behavior change. However, the evidence is not always clear and it would behoove adopters of this model to systematically study the effects of various sequencing possibilities on teacher behavior.

In the same vein, I believe it is important for developers of the model to experiment with the effects of various time allotments in the simulated vs. field experience segments of the model. As it stands now, the PST component has but one hour allotted to clinical professor or clinical teacher (field) time. Is this enough? Is observing classroom behavior via television enough or do we need to give the prospective teacher more actual classroom observation time? The same might be asked for the behavior training segments. What is an appropriate and efficient mix of simulated vs. real teaching time?

The Professional Sensitivity Training Component diagrams in volume I page 42 several modules dealing with programed materials, independent study and specialization. These are not found in the text. I wish the model builders had given potential adaptors some more clues to help them develop fruitful experiences here. I am assuming, for instance, that as part of the independent study and specialization modules students might be aided in using the theory and methods learned in the component to do classroom research in their own classrooms.

In writing this evaluation, I am reminded of the work of Rothkopf. He had asked teachers to evaluate program materials designed for children. The teacher evaluation had no relationship to pupil achievement with the materials themselves. What teachers considered important in learning had little to do with what actually turned out to be effective materials for pupil learning.

I like this model. I am most empathetic to his goals, objectives and strategies. I am particularly impressed with the Professional Sensitivity Training Component. But, I am may be like Rothkopf's teachers. Will students learn to be effective teachers through it? Hopefully, time and good research will tell.

REACTIONS TO THE SOCIAL-CULTURAL FOUNDATIONS COMPONENT

by: Louis Fischer

While I have reactions to various parts of the Model produced by the Syracuse University Team, my comments will focus on the Social-Cultural component. This decision rests on two assumptions. First, I assume that other, better qualified special consultants will analyze their respective components, and second, the potential user of the Model will have more than enough to digest without overlaping analyses.

The critique which follows can be organized under the twin headings of scope and feasibility.

Scope

The range of topics, ideas and skills included in the Socio-Cultural component is quite impressive. Drawing on philosophy as well as the social sciences, the Model is ambitious in one sense yet lacking in another. Of the included modules it would be difficult to exclude or even partially remove ideas or skills and still claim to have a first rate Model. At the same time there are bodies of knowledge peoperly under the Social-Cultural heading which do not appear in the Model. The most obvious of these is the history of education.

It is difficult to conceive of a fully functioning professional who lacks knowledge of the significant developments in his chosen field. Is it possible to develop intelligent commitment in the absence of understanding the major issues, battles, ideas and milestones of the profession's past?

There are certain social issues relevant to education not included within the suggested content of the modules. One of these, significant historically yet very much with us today, relates to the complex relations of church and state as relevant to schooling. With the growing federal presence in education, this age old issue is as problematic as ever before.

The very hot issues of community control of the schools is also neglected. The historic debate of local or centralized control of the schools takes on a new dimension in the later 1960's and is likely to give us difficulties in the years ahead.

Perhaps another topic that needs explicit attention is the one related to student militancy. This of course can not be handled in isolation and can be considered in the already included module focusing on authority in education.

Feasibility

Oddly enough, some of the comments related to feasibility might s-em inconsistent with previous remards under scope. This is the case because one of the major problems I see under feasibility relates to the time available within the total program for the Social-Cultural component. Consequently, as I suggest additions under "Scope" the feasibility problem becomes aggrevated.

1. The first item under this major heading relates to the availability of competent faculty in sufficient numbers. The component calls for faculty who are prepared in philosophic as well as the empirical or Socio-Cultural aspects of education. This is a rare combination. Optimally we want faculty who, on the one hand are competent in philosophic analysis, knowledgeable in educational theory and institutional complexity, curriculum and instruction, in order to

bring analytic skills into a living, functional relevance. On the other hand, he should know sociology, anthropology, history, economics and political science, as these fields relate to educational issues. This twin requirement is rarely met. Experiences with team efforts do not justify optimism in this proposed solution. Perhaps a more careful effort should be made by graduate schools to prepare their teacher educators with the above problem in mind.

2. The second item under feasibility relates to the use of field experiences for attaining the objectives of the component. It seems to this reader that the Social-Cultural content from the junior year on should be tied closer to selected field experiences for at least two reasons. First, to make the concepts more meaningful and thus more likely to be used. Secondly, the students would have a more defensible basis for making career decisions. In the Model the junior year is presumed to have such a function. It would be important to explore the extent to which the same field experiences could serve the needs of several Model components.
3. The Social-Cultural content will be expensive to implement in faculty time. The time allocations for faculty do not seem quite realistic. Unless one were simply to present lectures, it would take more time to develop an understanding of the ideas and their interrelationships than the modules and charts indicate. Furthermore, the more emphasis is placed on supervised and guided field experiences, the more faculty time is consumed. Yet such field experiences, as noted in the previous point, are necessary if we are to avoid merely verbal acquisitions on the part of most students.
4. This item is but indirectly related to feasibility. It calls attention to the fact that the suggested readings are not always

adequate. Potential users of the Model should note with care that the titles are but illustrative of the intent of the authors. Longer lists, more alternatives would have been desirable, particularly for institutions which do not have an abundance of well prepared faculty to handle these modules. The fact that so much of the proposed work is to transpire in seminars further aggrevates the difficult problem of the availability of competent faculty.

5. Could the Model be tried out on a six year basis rather than the proposed five? Within such a time span the much needed field experiences could be more properly sequenced. Brief periods of total time as well as longer periods of part time experience could be tried, upon which the professional content could be built. Can professional commitment be developed within current patterns of teacher education? Or do we need total immersion in professional problems under competent guidance over an extended period of time? The lessons of the more mature professions, namely law and medicine, seem to point in that direction. Otherwise, a partially formed commitment based on inadequate grounding is quickly eliminated in the ongoing, status maintaining forces of the schools. The new products quickly take on the procedures, practices and commitments of the "establishment".
6. Finally, feasibility is a contextual, situational matter. What might be feasible at U.C.L.A. may not be at Chico State and vice versa. Institutional commitments to purposes and programs, the use of available faculty, the presence of large numbers of experienced educators pursuring advanced graduate degrees yet available to work with beginners, the proximity to urban centers, ghetto schools,

ethnic minorities, a variety of sub-cultures all relate to what is feasible and what is not.

The Model is a very ambitious total program. Enough imagination went into its Social-Cultural component, that it should be tried in toto or with its parts carefully modified. Both students and faculty will learn in the process.

REACTIONS TO THE SELF-DIRECTED COMPONENT

by: Norman H. Wilson

A Zen Buddhist story tells of a monk who liked to row across Lake Biwa (near Kyoro) each morning just before sunrise. One morning was particularly foggy, but he started out on his customary course. The monk stood at the stern of the boat, nosing the boat forward with deft push-and-pull strokes of the stern paddle.

From out of the fog dead ahead another boat appeared. A canopy at the bow hid the oarsman from the monk's view. Thinking that the oarsman could not see his boat, the monk called out, "Please shift your course." But the approaching boat did not shift its course.

Again the monk called: "Change your course! I have the right of way!" But the boat continued its collision course. Exasperated, the monk yelled, "Look out! We're going to collide!" Just as the two boats were about to smash, the monk gave a quick push with his oar and avoided the collision.

As the two hulls passed in opposite directions, the monk stopped rowing and leaned toward the area under the canopy where he knew the oarsman would be. "You fool! Why don't you...." The monk caught his breath. No one was in the other boat!

To many of us professors who are on collision courses with students, the apparent blindness of students would lead us to doubt the value of a self-directed component in graduate teacher education. Scholars who scoff at the intellectual quality of young activists in general and future teachers in particular will question the substance of a year devoted to the process of education. The proposed component smacks of that "Progressive Education", in which student interests and practical problems dominated curriculum decision-making in many schools. With little immersion in the complexities of contemporary classrooms, students would seem to be in a poor position to determine what they themselves need. The faith in students held by the authors of this self-directed component proposal may be overly optimistic. Only rarely is the student ready to assume responsibility for his own learning.

Faculty with little faith in student maturity will be in a fine position to destory its implementation. The dour view, "it won't work," can easily become a self-fulfilling prophecy. Yet basic assumptions here are that students are maturing and that faculty can be found who want to facilitate student learning in their own and other disciplines, who are competent in leading students to inquire ever more deeply, who have a concern or interest in the student as a person. It seems likely that an institution seeking to recruit faculty for this program will be hard-pressed to find enough people willing to risk the involvements it implies. Many of us perceive "quality education" as "quality control". The reduction of faculty power to judge student performance or to prescribe behavioral outcomes often runs contrary to our concept of quality. This component calls for faculty to support initiatives and re-appraise conventional notions of academic standards. In short, it demands faith in students. It assumes that students can be the oarsmen for their program.

The self-directed component offers several other significant innovations. Each staff member, regardless of status, is expected to facilitate learning. This role contrasts sharply with the conventional view of the teacher as an imparter of information and insights. The staff member must be in contact with the individual student and understand his readiness for learning at any given stage. The staff member serves the student as a specialized resource and as an informed listener. The staff member will thus often meet with the student at the student's convenience. Like the agricultural extension agent who deals with problems as the farmer perceives them, the staff member may have to undertake research to help the student solve his particular problem. Students rather than the university administration will select their own staff members.

While the concept of couselor-advisor is not new, the quality of his relationship with the student may well be. He must be both well informed on professional field (elementary education) and skilled in interpreting student behaviors. He must be able to perceive students as people first, prospective professionals second. If he is sensitive to student feelings, he will be a significant catalyst for gaining self-awareness. He will help prospective teachers appreciate the slowness of human change, the multiplicity of forces within the individual, and the complexity of the learning process.

The significance of student participation in pre-professional decisions is a major emphasis of this component. First, as has been pointed out, the students have a wide range of choices in determining with whom they will work. A group may find that a social worker, geographer, or local historian may help them meet an identified need at a given time. To some extent, groups will be free to hire their own faculty members. What better way to learn the possibility of using local resources when they themselves are classroom teachers? What better way to discover the importance of specialized knowledge? The opportunity for choices can be expected to develop group cohesiveness.

A second element is the significance of students in the support system. The enabling seminars, sensitivity groups, and individual conferences will produce conflicts and tensions. These can perhaps be understood and resolved by fellow students. The skills gained in preceding leadership training sessions will be needed in this conflict-resolving process. The newsletter offers an inter-student communication medium which offers further opportunity for student growth. Other sources of student support which may emerge will be discussed in a subsequent section of this commentary.

A third element is the significance of the student's own experiences as a source of his learning. The student is a source of feedback on the model program's effectiveness. The log offers a frequent opportunity for the student to record his readings, crystalize concepts, express his introspections. It can lead the counselor-advisor to perceive ways of expanding the student's network of relationships with other faculty, students, readings, etc. The log gives ample evidence that the student is a learner over a 24-hour period. It can represent tangible evidence of growth and the unknowns. Perhaps the log and the newsletter will reveal to the writer and his readers the many realities which we daily ignore.

The Self-directed component takes into account considerable knowledge gained from social psychology. Scholars tend to throw up their hands in horror when they view the ignorance of teachers supposedly teaching the areas of their competence. So, we might add, do teachers themselves. But the elementary school teacher's relationships are primarily with children. The quality of those relationships is determined by some of the realities listed on pages 423-4 of the proposal. The self-directed component provides ample opportunity for prospective teachers to develop concepts of group behavior from their direct experience as well as through social psychology as an academic field.

Finally, the proposed program redeploys administrative and staff structure to facilitate student learning. The dangers of the structure proposed will be discussed in a subsequent section. This proposal does recognize the need for innovations in administrative structure: a de-emphasis of external judgments by isolated faculty, an emphasis on counseling rather than control, and a decentralization of decision-making powers. The proposal indicates that administrators of this component will be strong in their unobtrusiveness.

In summary, this proposal contains several significant innovations. First, it increases student powers to determine their own program, implying far greater faith in students than most academic programs presently do. Second, it calls upon each faculty member to facilitate learning rather than impart knowledge of his field. Third, it places greater responsibility on the counselor-advisor for sustaining an educational relationship than does the conventional academic program. Fourth, it widens the range of choices which students can make in the selection of "significant others". Fifth, it involves other students in providing mutual support. Sixth, it taps a wide range of learning experiences which the student records in his log and the newsletter. Seventh, it utilizes research from social psychology to enrich the total academic program. Eighth, it provides for administrative change to implement the new program.

The Need for Such Innovations

The design of this comprehensive undergraduate and inservice program is consistent with the needs of 21st century teachers -- in many respects. At the risk of repeating rationales for the design of particular components, I want to outline factors which require innovations described in the self-

directed component. These factors will then be employed to criticize aspects of this component.

First, it seems to me that the model deals with the central thrusts of curriculum reforms. At the elementary and secondary level it is "inquiry" or "discovery". Children today thus are growing up with a confidence, inquisitiveness, and knowledge fostered by deep, widespread curriculum change. We in higher education are feeling the impact of curricula which have prepared young people for higher education and/or have "turned them on". Students expect more from higher education...and too often they're not getting it. They are seeking closer relationships with one another and with faculty, perhaps to compensate for the insecurity of their relationship to a rapidly changing social system. They are expressing social concerns because they are caught between a sense of their own significance as individuals and a sense of their individual impotence to influence the sources of human destructiveness within our society. Prospective elementary school teachers can be expected to be affected by these curricular influences.

Second, new instructional media have become available to schools. There seems to be no relationship between the geographical location of schools and the speed with which new media are being utilized. For example, in suburban Boston and suburban Brattleboro (Vermont) one finds video-tape recorders, tape-recorders, science kits, 8-mm. loops, flannel board, etc. The input of these devices makes individualized learning more likely. Children in the primary grades are becoming accustomed to this hardware and often display more competence than do their teachers in exploring their uses.

Third, technological changes within Western society are creating a new learning environment for this generation of teachers. The next generation may be only five years away as the pace of change accelerates.

Agreement by scholars on this generation's most critical problems will be shattered by the impact of events. The world seems to be tumbling like a space ship in orbit while faculties frantically try to restore the old balance mechanisms. The self-contained classroom is giving way to the concept of learning centers in various corners of the classroom. The classroom matriarch is being superceded by instructional teams. The old pattern of changing classrooms when the bell sounds is giving way to individualized, computerized learning programs. The prospective teacher needs to be part of the change process, utilizing the new learning environments to serve his own and his group's purposes. The student's learning center may be an individual carrel, a seminar room, or a chartered jet plane to Japan.

Fourth, students are growing accustomed to manipulating their learning environments. The world can be tuned in at the flick of a TV switch or the drop of a pill. They can associate readily with their peers, effectively isolating most of us over thirty. In his search for involvement, the creative student may immerse himself in protest and the politics of social change. Immediate environmental control is a part of the prospective teacher's life. For children in the elementary school, the opportunities to select any one of a number of activities have increased the expectancy of self-direction.

Fifth, problems in human relations have become more acute despite the growth of knowledge about conflict resolution. It has become apparent that our society has suppressed serious contradictions from its consciousness. The fissures exposed during the 1960's have led us to wonder, "Who is not a minority group member?" We were a pluralistic society, but pluralism favored a narrow power structure. We were a peace-loving nation, but we found ourselves supporting dictatorial regimes in order to maintain a plitical status quo. We wanted equal education for all -- as long as it didn't cost too much. We were jolted by assassinations into the discovery of violence in the American way of life. The catalog of our interpersonal, intercultural problems may be endless. To list them here is needless; to say that men are any worse or better than they were is irrelevant. The point is that conflicts within our society seem to be intensifying, and too often are evidenced through violence rather than school study. Education at every level needs to confront this problem, to develop mechanisms through which a "victory" for one side can become victories for all.

Sixth, the professional teacher is becoming a wage earner rather than an educational leader. In order to survive, the teacher usually accepts the school system's procedures and carries them out with the obedience of a good soldier. He recognizes that the rewards and support of the system hierarchy usually go to those who can control young people effectively. I have not yet found a system which let a teacher go because of destructively repressive measures he may have used. But the teacher who seeks to raise the involvement level of the class, so that chaos results, is often dismissed. Unionism now may protect such a teacher...and his salary. It may not, however, meet the community's need for educational leadership. The press toward decentralization and innovations in staff functions increases the need for community involvement and leadership skill.

Seventh, a high tolerance for ambiguity, a strong sense of self-direction, and a refined skill in resolving inter-group conflicts are key qualities in the successful educational leader. They may not be sufficient to give him job security, but they can contribute to his or her effectiveness. In any decentralized system, leadership responsibilities will be diffuse and may overlap. The tasks of counseling students, coordinating a curriculum, working with dissident parent groups, educating new teachers and community interns, organizing learning centers, all may be part of the future teacher's life. If the performance of those tasks makes him an educational leader, let's prepare him for it.

A survey of needs in education thus suggests the significance of the self-directed component. The component places the prospective career teacher into situations where his initiatives are called for, where he will inquire, were he will gain familiarity with new instructional media. It strengthens individual differences which can contribute to a common core of learnings. It puts decentralization into practice. There are doubtless other ways in which self-direction can be nurtured. This component, following more structured modules of experience, would seem to develop the kind of maturity needed for 21st century leadership.

Possible Obstacles to Implementation

Who determines the teacher's competence? What criteria will be used? The proposed component implies that the counselor-advisor will function best if he is in a clarifying rather than supervising relationship to the student. In this context the student may feel free to discuss doubts, guilts, hostilities, etc. without fear of reprisal. Relieved of pressure, some students will begin to tap reservoirs of unsuspected talent and to encounter barriers to effective, mutually fulfilling relationships. Others, conditioned to work for grades and teacher approval, will "goof off". When placed in a traditional school, the student who functions best without external pressure may run smack into the firm policies of the system. He will want to encourage student initiatives and may be told, "That's fine in the teachers' colleges, but you can't give these kids an inch of freedom." Sure enough, some of his classes are chaotic. The student who works well within the traditional system may thrive. He likes the traditional role of the teacher and the principal likes his well-controlled classroom. Does the counselor-advisor support the status quo of the school system? Does he encourage prospective teachers to increase student involvement? Or does he maintain a non-judgmental position?

The model program may overlook difficulties which students will have in adjusting to a much greater degree of autonomy than they previously have had. From our earliest years we have seen schools as the road to social acceptability and economic security; the teacher's approval was required to keep us on this road. Even mature college graduates with Peace Corps experience find it difficult to function in a school setting without professorial or supervisory approval. (Faculty members too find it difficult to establish a non-judgmental relationship with students.) Have teacher expectations imprinted themselves so deeply on our personalities that we cannot utilize our finest intellectual potential without external pressure?

The self-directed component places greater stress upon affective than cognitive development. While this may facilitate the growth of self-direction, it may also lead to considerable self-centeredness at various points, because there is no direct provision for dealing and direction of feelings. We can expect that students will be trying out new roles in the relative safety of the "T" group and enabling seminars. Considerable attention may then be centered on one's "hang-ups", suspected neuroses, interpersonal conflicts, and other new-found weaknesses. To accept and utilize anger, to enhance humor, to have faith in the power of self-renewal are major behavioral aims implied by the model. Can the self-directed component help one accept the spontaniety of feelings, the inevitability of "hang-ups", and the slowness of personal growth?

Sufficient autonomy has been provided the sub-groups so that each might work out for itself a balanced program of activities. Informal, social activities should be within the slope of their planning. The development of these cell groups will reveal many sources of talent. It seems quite likely that some students will appear to their peers to be more proficient counselors than any of the staff, more effective facilitators of learning, more knowledgeable field consultants. The institution's employment of professionals to fill these roles could prove a hindrance to individual student development. Why, for example, should the student look into creating a field experience when the work has already been done for him? Why should he attend a professional meeting on curriculum materials when a faculty member has gone to the trouble of stocking the Resources Center? The proposal suggests that too much will have been done for the student. Might that not stifle student initiatives to establish his own learning environment?

There are budgetary as well as educational advantages in student initiatives. The number of staff people called for by this model would seem to set a high price tag on its adoption. In well-staffed, luxurious surroundings, prospective teachers will scarcely be prepared for economy-conscious communities. The disparity between overstaffed universities and understaffed schools will impede cooperation between them. More important, students are making decisions about their self-directed program without one dimension of reality: the budget. Students are more than idly curious about where their hefty tuition fees are going. They learn fiscal responsibility be being given a sector of the budget to administer, such as for the enabling seminars. Could the number of staff people called for by this model be reduced so that students themselves could effect economies by taking on staff functions?

Important economies might also be effected in the facilities called for by the program design. Decisions about furnishings really determine whose Center this building will be. The proposal suggests that modern furnishings and facilities will be ordered by the staff members. It is possible that students can build these facilities. Could they work out, in consultation with the librarian, an excellent library design? Could the "T" groups or enabling seminars develop a plan for maintenance?

If this component is to be self-directed, students should play a key role in the evaluation process. As the model now stands, students supply evaluative data but can neither interpret these data nor act upon their implications. Most of the key program decisions are apparently made for the students. The Facilitation Center Director, the Counselor-Advisor, Librarian, Abstractor-Recorder, and other staff all make recommendations and reports. If this is the case, how much real program control does the student group have?

If students are involved in the establishment and evaluation of the self-directed component, they may well reject the need for so many specialists to serve them. Fellow students, the counselor, and field consultant, says the scenario, all figure significantly in the services a student receives from the Facilitation Center. Perhaps he has too many specialists with whom to relate, particularly if he can participate in programs off-campus such as an NDEA institute at Michigan State. Why should the student be asked to pay for Michigan State's services when he has already paid tuition fees to his own university? Why not involve students in the decision to employ specialists such as an Abstractor-Recorder, Liaison Man, and Resource Center caretakers?

Possible Adaptations of Model by Innovative Institutions

The above implies the need for possible modifications of the self-directed component by institutions undertaking the undergraduate and inservice program model. Undoubtedly other revisions will be made in the light of an institution's student needs, staff, facilities, previous involvement in preservice training, financial capability, community needs, etc. Certain features of the self-directed component should be considered for adoption even if the component is not installed. While these have been discussed in the first section, we can now consider innovations based upon these features.

First, a smaller student body in this component might be used in a pilot project. The model discusses a counselor-advisor load of 60-70. This seems large during the initial stages of the proposal's implementation, and might be cut to 24 during the first year. It is important that on-going contact between counselor-advisor and the student be maintained. Rather than confront the counselor-advisor with too many students, he might be asked to serve students in several roles envisioned by this proposal: abstractor, field consultant, "T"-group leader, etc.

Second, a transcript of work should emerge from the log and conferences. The organic nature of the program suggests that salient experiences such as participation in another university's institute, tutoring, and editing the student newsletter should appear on the student's permanent record. The Goddard College transcript, outlining the individual nature of a student's course, serves as one model.

Third, a student-faculty administrative committee should be elected to oversee the model program's development including the self-directed component. The committee could have as its executive officer the Facilitation Center Director. In addition, the librarian and abstractor-recorder might be appointed ex officio. Particularly important is the committee's responsibility for evaluation, budgetary control. and program development. The committee's existence might reduce the likelihood of faculty-student confrontation.

Fourth, additional ways to foster student communication should be found. The newsletter is one. Enabling seminars might produce FM radio or video-tape programs. Photographic displays might be developed to show the program in action.

Summary

The self-directed component has much to commend it. It offers students an opportunity to build upon their previous educational experience and test the dimensions of freedom. Faculty and staff members are placed in new positions of service to the student community. The changing nature of students and the society which they will serve requires greater opportunity for student involvement in contemporary educational concerns. The student's total life is involved in learning; the proposal recognizes the need to bring these learnings to consciousness. Elements of the component can be revised by an institution intent on fulfilling its primary aims.

REACTIONS TO THE PROGRAM DEVELOPMENT SUPPORT SYSTEM

by: Gregory L. Trzebiatowski

Introduction

The following remarks concerning the Syracuse Model ETE Program are directed to the potential adopter of the Model Program described in the Final Report. It assumes that the reader has read rather thoroughly Chapter I and II, and skim read the remainder of the Report. The questions and comments made in this critique are intended to be thought provoking. Serious consideration and resolution of the questions raised should strengthen the final form of the Model. Space does not permit a laudable review of the strengths of the Report, therefore, the comments made herein are directed at the shortcomings and ommissions of the Model.

Comments in Section II reviews a major shortcoming of the overall model design. Section III reviews the three support systems as they relate to the Model and to each other. The final section and lengthiest portion of the critique analyses the program development support system with some specific questions raised concerning the adequacy of the system.

II. Overview of the Model

Assuming that other reviewers will devote their full attention to reviewing the model as a whole, I shall limit my comments in this area to a single topic. In reading the entire document in order to review the section dealing with support systems, I was impressed with the broad and imaginative use of instructional technology as instructional strategies in the various modules of the program, i.e. the use of programmed instructional materials, films, video taped materials, audio materials, etc.

However, pedagogical techniques for using instructional technology in the elementary classroom with elementary school children are not included in any of the modules I explored. Can it be correctly assumed that if the elementary teacher experiences various instructional strategies in her training program she will be competent to use these strategies in her classroom? I think not. It is one thing to learn from a programmed text and quite another thing to prescribe a programmed text to an elementary pupil and still another to write or modify a programmed unit to meet the specific needs of a particular group of elementary children. Where and how does the prospective teacher going through this program learn to operate the traditional audiovisual equipment (motion picture projector, tape recorder, filmstrip projector, etc.)? Where does he learn to evaluate the vast array of instructional materials currently available? To produce or even modify existing instructional materials to meet special needs? To teach either in front of a TV camera or beside a TV monitor? When and how to use an academic game? How to work with a computer terminal in his classroom? How to serve as manager of the learning environment which includes all of these materials and devices?

This deficiency could be remedied by revising some existing modules and adding modules to either or both the Methods and Curriculum Component and/or the Teaching Theory and Practice Component. Unless an elementary teacher is skilled in using instructional technology, or mediated teachers if the word technology disturbs you, he will be so busy conveying subject matter that he will never have time to become a truly significant other in the lives of the children he teaches.

III. Overview of the Support Systems

Any support system that is designed for the Model Program must keep the concept of protocooperation clearly evident in the design. This is important for two reasons, first, protocooperation is a central assumption upon which the success or failure of the entire Model Program rests, indeed protocooperation is one of the few really unique ideas in the Model, and second the support systems and the way they are designed and operated hold the key to the practicality of protocooperation. If the support systems are not well designed then the whole concept of protocooperation may not receive a fair trial.

Given the centrality of protocooperation, the support systems as proposed fail to focus sharply and penetratingly on the idea. The whole area of mutual cooperation between university, public school and industry is relatively uncharted territory, particularly the relationship between educational institutions and industry. Educators seem to have a romantic mistique about the capability of industry to solve educational problems and industrialists are equally inexperienced in dealing with the complexities of educational problems. I suggest, therefore, that the parameters of the industry-education relationship be carefully explored before binding commitments are made. That the needs of a teacher education program are varied we are all well aware but we are less well aware of the varied capabilities of industry. These capabilities range from the production of instructional materials to sophisticated research and development techniques. The ground rules of a protocooperative relationship between industry and education need to be carefully spelled out to prevent unnecessary frustration and perhaps the servering of a relationship that must grow stronger. The development of a protocooperative relationship between education and industry which goes beyond the talking stage is long overdue.

Less clearly stated but never-the-less very central to the Model Program is the protocooperative relationship between the program participants, i.e. the student teachers, and the program staff. The special seminars, the self-pacing modules and other activities are all intended to permit a great deal of protocooperative interaction between the learner and his teachers. Here again unless the designers of the support systems keep the importance of this interaction clearly in mind this important ingredient of the Model Program may escape especially as administratively "clean" support systems are institutionalized. This is not a plea for disorganization. Quite the contrary. The support systems must be very well organized and perhaps very complex but they must maintain flexibility so any individual in the system has as few restraints and constraints on him as are necessary. This may seem to be an unnecessarily severe requirement. However, if the Model Program is to produce the kind of teachers described in the Final Report then the support systems must be the *slaves* of the students and staff and not the reverse as is so often the case. The support systems must not be looked upon as source of frustration which restrains and curtails the creative activities of the students and staff but as facilitating units which fosters and supports protocooperative activities. The support subsystems must not be permitted to become so strong as to be capable of dictating to the other sub-systems. This can and does happen very easily because the support sub-systems control the flow of two vital entities: money and information. If at all possible the concept of protocooperation should be carried down to the smallest sub-units within the system.

A good management support system can and should perform a number of important functions for the Model Program. Included in these functions should be the following: policy determination, instructional support, up-dating and adaptation, research and development, evaluation, data collection and information, personnel, cost benefit, program implementation, and supply and facilities maintenance. These functions need not be treated as a separate support system but each of these functions should be included in any support system.

It is not my purpose in this section to design a support system for the Model Program since there are many possible designs each of which could be successful, but to remind the implementer and systems designer of some of the unique requirements of any support system which will be used with the Model Program.

IV. The Program Support System

The information contained in Chapter 12 of the Final Report is excellent material since it draws attention to a number of important ideas, e.g. the use of a system approach to instructional development in order to enhance the humanistic goals stated in the model. However, a number of important questions were not raised in the chapter. These questions fall into two major groups, those dealing with the relationship of the program development support system to the instructional program and the other proposed support systems, i.e. the information and evaluation support system and the organizational support system, and those which relate to the organization of the program support system itself. The former will be dealt with first.

Using the ten functions of a management support system which were mentioned above as a baseline, the following questions concerning the relationship of the program development support system to the instructional program and the other support systems. Where is the policymaking body of the program support system? Who are the individuals serving on this body? What and whose interests do they represent? How detailed should their policies be? Who determines and controls the budget of the program development support system? More specifically, who determines how much a given module should cost? Who determines when a contract should be let to an industry for the development of an instructional unit or where the unit should be developed "in-house"? What facilities and equipment can the program support system reasonably demand from the facilities unit? What information should the information support system be capable of supplying to the program development support system before work is begun on the development of an instructional module?

Who determines the validity of a given module? What is the role of module instructor in the development of a module? Does he have the sole responsibility for the module's content? Who determines the instructional strategy to be used in a module; the instructor, the students or the module development staff? What happens when the feedback shows that the module instructor is the weakest element in the module's instructional program?

What is the relationship of the Information and Evaluation Support Staff to the Program Development Support Staff when a newly developed module of instruction is being tested?

This rather long series of questions while being far from exhaustive do serve to point out the need for a carefully thought out comprehensive program management system of which the program development support system is only a part. The organizational support system as described in the Final Report does not supply adequate details on how such an overall management system would function. Experts in project management should be consulted before support systems are designed for specific institutions. Good program management is essential to any project, but it is particularly important in a teacher education program that permits self-pacing by the students and anticipates protocooperation between elements of the system which are not accustomed to behaving in a protocooperative manner.

Looking at the internal operation of a program development subsystem a number of questions should be resolved. Some of these are: Who decides what the objectives of the program, component or module should be? Who sets the standards for acceptable output of a given instructional module? How can human variability be controlled in the operation of an instructional module? What techniques can be employed to keep a module up-to-date once it has been developed? What role can computer simulation play in the design and testing of instructional modules? How can quality control be maintained when modules are dispersed into the public school system? How is a student's progress through the modules of a component to monitored and recorded? What is the relationship between the modules in one component and the modules in another component? How is the need for remedial instructional modules determined? Can the system handle modules spontaneously created by students and staff?

It will be a real challenge for the implementers of the Model Program to design a series of support systems and an overall management system and associated decision making structure which is efficient and well organized and yet does not curtail the achievement of the program's humanistic objectives.

REACTIONS TO THE FIELD EXPERIENCE SEGMENT

by: Hans C. Olsen

This is a most interesting program. It is evident that much thought and effort went into its development. A framework consisting of components and support systems gives adopting institutions a great deal of freedom to fit the program to the conditions that prevail in their settings, yet make it possible to retain the essential characteristics and philosophy of the basic package.

The modules appear to cover the general range of knowledge and skills that successful elementary school teachers need. The possibilities for additional modules are limited only by the bounds of the vision brought to the task by the personnel of adopting institutions. Prospective adopters are cautioned that this program must be modified to fit their specific situations.

Unquestionably this model program differs radically from those presently in operation. The emphasis on student participation certainly requires a quite different "mental set" for both students and teachers. This in itself will require some "thinking through" on the part of school and university personnel who contemplate adopting it. In addition, the adjustment to students working at a variety of tasks instead of all focusing on the same one at the same time should cause many on the instructional staff to searchingly review their own activities and behaviors -- and that could be a most valuable contribution of the program.

A most important point is that this program holds many possibilities for generating and gathering extremely important and useful data. The research possibilities are almost unlimited. Implementation of the model program or some modification of it would provide opportunities to test many long cherished ideas about how to develop high quality elementary school teachers.

The Field Experience Segments

The field experience dimensions of the model program are quite promising. The fact that there has been a concerted effort to weave them into the total fabric of the program indicates a quite different approach to teacher education from that currently popular today. Experience for the sake of experience has been reduced drastically. This means that the relationship between the field experiences and the instructional portions of the program become important and open to scrutiny. In turn, the doors are open for the development of an internally consistent teacher education program.

The word "protocooperation" catches the attention of the reader. At a time when the idea of cooperation or collaboration on any but one's own terms remains largely unknown in the education of teachers, anything that awakens and arouses teacher educators (in all institutions, organizations, and agencies) to the need for rethinking and revitalizing the relationships between them is most welcome. Other terms might be used, for the basic nature and structure of the most effective relationship is only now being explored. The tentativeness of this dimension of the model program is evident, and will, one may suppose, cause some consternation among those who consider it for adaption or adoption.

Strengths and Weaknesses of the Field Experience Segment

Junior Year -- Tutorial and Micro-teaching Center

One obvious strength of the Tutorial and Micro-teaching Center rests in having a prepared setting for these activities. Trained clinical teachers to guide the activities of students in this phase of their program is important. Another important factor consists of administrative ease of finding placements for students; the Centers make this a minor problem.

Another strength, mentioned earlier, is that the tutoring and micro-teaching experiences are integral parts of the total teacher education program. Basically these experiences tie directly to the other segments of the curriculum.

Starting with tutoring experiences _while_ focusing on the elements of teaching enables the prospective teacher to develop both the techniques and the "mental set" needed for guiding children individually rather than always in groups. A breakthrough of this sort is an important contribution. Most teachers are lost when faced with one pupil. Their preparation makes it most difficult for them to be effective in a one-to-one setting.

Some questions that should be considered:

1. Who determines when and where a student moves for his tutoring experience? How much part may he (the student) take in this decision? On what basis is it decided that a student move on to work with another pupil?
2. What pattern of collaboration in decision-making and planning exists between the clinical teacher and university staff responsible for other segments of the instructional modules?

3. Are tutoring and micro-teaching viewed as essentially in-school activities? Or after-school activities? The answer to this has relevance for the role of the clinical teacher in guiding these experiences.
4. How is provision made to insure that the micro-teaching experiences that pupils participate in are a part of the on-going school program? In what way is this synchronization achieved?
5. Are video-tapes of micro-teaching episodes always reviewed by the student, the clinical teacher, and university professors? Could others such as fellow students and clinical professors be included to provide additional feedback and to increase their own skill?
6. What is the relationship between the director of the Tutorial and Micro-teaching Center and the principal of the school in which the Center resides?

Senior Year -- Teaching Center

The same strengths exist in this facet of the program as in the Tutorial and Micro-teaching Center. In addition continuous team supervision assists the growth of students. The team cycling process holds particular merit. Specially trained clinical teachers and clinical professors should be a major advance over most present programs.

Another strength is the fact that emphasis is placed on a variety of guided teaching experiences for each student. This means that the student does not become comfortable in one setting and develop strong resistance to other settings. He is not given a chance for that.

Some questions that should be considered:

1. What exactly is the role of the clinical teacher in the senior year? What is the nature of the relationship between the clinical teacher and the clinical professor?
2. Why are students assigned in pairs? How important is this in promoting instructional efficiency, especially in scheduling seminars. Are there not other important factors? What about pairing students for greater flexibility, additional feedback, and increased opportunities for observation?
3. What role do students play in deciding upon their own teaching placements during this year? Does the university faculty, as well as the school staff, have a role to play in this?
4. On what basis are students paired? Are factors such as personal compatability, similar needs, and varied skills considered?
5. Why not have several members on the team if the goal is maximum feedback to assist each to become more self-directed and rational in his approach to teaching? In some cases might not four or five students be more effective than two?
6. In what ways should the clinical teachers in the senior year differ in the amount and/or kind of special preparation they must have from that required of clinical teachers in the junior year?
7. What is the relationship between the director of the Teaching Center and the principal of the school in which the Center resides?

Fifth Year -- Resident Center

Again, the resident year program shares most of the strengths of the field experience programs of the preceding two years. Pairing two students to man a teaching post on an internship basis gives needed flexibility, yet assures consistency.

Some questions to consider:

1. How free is the student in his choice of Resident Center? What is the role of the school in choosing students?
2. What part, if any, do university personnel play in supervising the resident teaching experience?
3. How does the director of the Resident Center function in the school setting? What is the nature of his relationship with the school principal? With the Resident Center teachers? What is the relationship between the clinical professors and the Resident Center teachers and principal?

Feasibility of the Model Program

Roles and responsibilities as well as administrative arrangements tend to have greater impact on decisions concerning feasibility than does the substance of the program. The model program appears to be feasible. Prospective "purchasers" will, however, need to think through several areas of potential difficulty.

One of these is the preparation of qualified clinical teachers, clinical professors, directors of centers, and university professors for this program. This could be particularly acute as a problem in developing a cadre of clinical teachers and clinical professors. The only preparation experience mentioned in the model program is that of going through the same modules as the students. Who takes them through these modules? This is almost a question of the chicken or the egg. Should not clinical teachers and clinical professors be given preparation over and beyond that they are to provide for the students? If so, what should this consist of? Specifications for a preparation program should be woven into this model program. The Maintenance Substructure of the Organizational Support System provides a base for these specifications. It will need to be developed further.

Another area of potential difficulty consists of the fact that according to the model program school people (clinical teachers and clinical professors) and university personnel will seldom interact at the supervisory level. There is as much danger from an almost totally parochial viewpoint ("This is the way we do it in this building or system") in supervision as there is from one that is too much universally oriented ("This is the basic principle to follow"). Either extreme could be prevented by modest revisions in the specifications for the various modules. It may be that making the clinical professors employees of the university and increasing the scope of the clinical teachers would alleviate the problem. Then ways would need to be found to increase the involvement of other university professors and school teachers in the direct supervision of the teacher education students.

A third area that should be given careful consideration is the coordination of the supervisory activities engaged in during the various field experiences. The directors of the centers seem almost ignored in the model program. Should they be employees of the school, of the university, or the cooperative venture? When in the development of the program are they selected? By whom? Using what criteria? These and other similar questions need to be answered to give greater specificity to their roles.

The feasibility of the field experience segment of the model program will be clarified by a more extensive development of the coordinating structure. Special consideration should be given to such items as who does what, the kinds of organization needed, the involvement of teachers, supervisors, and professors in basic decision-making regarding the program for individual students. The basic concern is how the program is to cooperatively developed and maintained for each student.

REACTIONS TO THE INFORMATION AND EVALUATION SUPPORT SYSTEMS

by: David E. Hunt

These comments are aimed to give some general reflections as well as some specific observations on the "Information and Evaluation Support System" which will be especially relevant to the next phase in development of the model. Since the evaluation support system is concerned with all components and their interrelationship, the comments will at times refer to the overall model or to specific components or modules.

The first reaction to this support system is to be overwhelmed by the enormity of the task. Consider, for example, the implications of the sentence, "Every module of each component specifies at the minimum a pre-assessment and a post-assessment" (p. 480). Then open the report to any one of the modules and think about the work involved in developing just one form of assessing the trainee on this module. Having at least sensed the difficulty in one case, then note (1) that there are 78 distinct modules (not including the Liberal Education and Self-directed components which do not specify modules) and (2) that "a number of different types of tests will have to be constructed depending on the particular module" (p. 480). The question is not so much what to do but how to know where to begin.

One of the major virtues of the model, its comprehensiveness, makes the task of fractionating it for purposes of more specific developmental analysis more difficulty. However, it probably does not matter a great deal from an evaluation viewpoint which component or set of modules one selects to begin the development of methods of assessment. From a training viewpoint, however, it matters quite a lot which component or set of modules are selected first. Since it seems likely that evaluation methods will be developed for those program elements initially selected to be used in training, the issue of how to break the gestalt whole of the model into parts for developmental analysis becomes important. Should one begin with the modules in the Professional Sensitivity Training Component since these occur fairly early in the sequence? Should one pick out those specific modules which are pre-requisite for initial development? These questions, of course, lead to the more general problem of whether the model in its comprehensive sense can be segmented for developmental analysis. These reflections on the sequence and strategy in the next phase may seem to be tangential to problems of evaluation, but after all the evaluation support system must be focussed initially on some specific module.

Perhaps since any form of dissection of the model does some violence to its gestalt - like character, one should consider a more radical developmental strategy. First, one might acknowledge the very impressive logical organization of the model yet note that validation is required. Second, for purposes only of getting developmental work going, one takes a radically different view of the material. Rather than viewing it as a comprehensive model, one considers only the 78 modules within the five components (plus the two "non-modular" components) as relatively discrete sets of materials to be validated or used as source material, which of course includes the development of methods of assessment. Following this intermediate phase of "fleshing out" the modules, then at some time in the future (time determined by the amount of "meat on the bones"), the next step might be undertaken, i.e. returning to the more comprehensive application and evaluation of the model in its entirety.

3

The Evaluation Model

Returning to evaluation as such within the above context, the development of assessment methods is made much more straightforward by the precise behavioral form in which most of the modules are stated. Put another way, much of the initial work of task analysis has already been done. Persons familiar with developing methods of evaluation will immediately acknowledge the uniqueness of beginning to develop methods for evaluation when the objectives have already been specified.

I have an opinion relative to this specification of component and modular objectives that their usefulness will be directly related to the degree to which they are stated specifically in relation to the trainee. The present approach has obviously attempted to define objectives in trainee-centered terms, but there is still variation in the degree to which such definitions have been accomplished. The distinction is between external, definition e.g. "to provide an acquaintance with...", "to expose trainee to...", etc. as opposed to internal, or trainee-centered, definition e.g. "to produce skill in...", "to change attitudes about..." I do not think that this distinction can be dealt with simply as synonomous with the distinction between the process and the product. When one develops methods for assessment and evaluation, the degree to which the objectives have been explicitly stated in terms of the trainee becomes very clear. In the present model I have the impression that many of the modules are specified in trainee-centered terms, while the components, as their titles suggest, are defined in more external terms.

Also relevant to differences between component and module in evaluation is the observation, from considering Figure 13.1 on p. 484, that feedback and control is explicitly provided for a module, but there is no provision for feedback and control of a component. Thus, modules might be developed for sequential skill acquisition which cumulated into a component which might be irrelevant and/or unnecessary. This difficulty in evaluating the differential validity of the seven components through the evaluation model cannot be solved simply by attaching a feedback loop to the component column on Figure 13.1. The components might be considered simply as convenient aggregations of modules. If one accepted this view then validation and evaluation efforts would all be directed toward module evaluation (as in Figure 13.1). The aggregation of re-grouping of modules within component could then be considered in relation to the module evaluation. Also such an approahc would deal with the problem of why certain modules, e.g. PST-6, are in that component rather than in the TTP component.

In this context again, the comprehensive "package" quality of the model is a curse in disguise. Put most simply, if every trainee goes through every component successfully, then there is no component variance to analyze in relation to criteria, e.g. teaching effectiveness. This difficulty is peculiarly unfortunate since the model, with all its components, is enormously time-demanding, so that its ultimate acceptance will certainly require streamlining. ONe or more of the components may be completely unnecessary, but it will be difficult to find out at best, and impossible if all trainees go through the entire program.

One solution, of course would be to encourage the selective adoption of single or small groups of components in certain programs. Unfortunately, however, such a procedure is a realistically unlikely as it is methodologically rigorous.

Comments on the evaluation model should not be concluded without re-stating the very considerable opportunity these modules provide for the person concerned with evaluation to develop small multi-method modular evaluation packages. As suggested earlier, the development of evaluation methods can more realistically proceed in a "module-by-module" order (without too much attention to sequence than can the training itself.)

The Monitoring Model

A major question is whether those evaluation methods used in Figure 13.1 (Evaluation model) can be used in Figure 13.2 (Monitoring model). Especially when the trainee is the only person involved in the module (e.g. CD-1 where other staff time= 0 hours) the evaluative methods must be appropriate for diagnostic purposes, and thus may not be the same procedures as would be used for evaluative purposes.

One of the major flaws in most systems of classroom interaction analysis is their failure to distinguish between the appropriateness and validity of the system for objective evaluation from its utility for providing feedback to teachers. The specifications for an evaluation model are not the same as those for a monitoring model, and it may be that different forms will be required for most modules in their evaluative and monitoring use. In any case, it is an important question which deserves more consideration. If one proposes to build a self-pacing system relying on a monitoring model, one needs to be explicit about how the feedback will be utilized.

Other persons, reflecting on the model, have commented on the potential limitation of the model in that the trainee is told he can participate in the decisions about his training and yet he is confronted by a fait accompli in terms of the hurdles. What happens, in the monitoring model, for example, when the trainee does not agree that this specific module skill is needed? How does the system respond to the trainee's views without relinquishing all objective standards?

Evaluation Strategies

Presage evaluation is primarily valuable as these variables interact with certain training aspects. Although important it seems unlikely that much emphasis can be placed on presage interactions until the details of the training intervention and methods for evaluating them are developed.

When one considers process evaluation, questions arise as to the compatability among component skills. For example, what process goes on in a trainee's head when he experience- simultaneously one form of training which emphasizes the intellectualized logic of academic discourse e.g., SCF and another form of training which emphasizes the trainee's focussing on feelings and meaningful experience e.g. PST? This is but one of what may be innumerable examples (some of which are touched on in the "Scenario") which need to be considered before process analysis and evaluation can be carried out. In short, some kind of specification of what would happen to a trainee in a cumulative sense, i.e. what would go in his head, under ideal circumstances as he experienced this diversity of training.

This issue is also related to the earlier point about evaluating the differential contribution of each component. In order to do this, some understanding of the combined cumulative impart of the components is required.

In summary, the model in its entirety provides an impressive organizational whole. However, since it is a gestalt, taking out parts for the next developmental phase is difficult. However, once agreement is reached on what portion or set of modules will be developed or investigated further, the task of developing methods for evaluation, though formidable, is made much more feasible by the precision with which the module objectives have been stated.

REACTIONS TO THE ORGANIZATIONAL SUPPORT SYSTEM

by: Richard A. Schmuck

I wish to comment on your plan for developing an organizational support system from four points of view: (1) The importance and relevance of this sub-system, (2) Its principal strengths and weaknesses, (3) An analysis of the maintenance subsystem, and (4) An analysis of and practical suggestions for implementing protocooperation through the development of an adaptive subsystem.

Importance and Relevance

The inclusion of an organizational support system within the more general plan reveals the sophistication of the creators of this model. Most educational enterprises which are innovative falter, not because the individuals fail to carry out their respective duties competently, but because their contacts and communications with one another are uncoordinated, closed, and infrequent. Small interpersonal frictions grow into large scale organizational problems because of the lack of norms, skills, and procedures for coping with coordination and communication. Often plans for innovation in education are piecemeal and do not adequately plan for the organizational problems that inevitably arise. This model should be strongly lauded for its emphasis on the organizational support system.

The organizational support system is important because it will help to make this teacher preparation program self-renewing. A self-renewing program has the organizational ability to adapt continuously to its changing external environment while still providing a quality education. Moreover, it is able to modify itself, through its internal environment, so that it is better able to fulfill its goals. This organizational perspective has some very important implications. It provides for the growth and development of the program--not growth in size, but growth toward increased problem-solving effectiveness, greater potential for innovative action, and a greater overall capacity for adaptation and change.

I would see as the major goals of the organizational support system the following:

(1) Increasing understanding of how persons in various positions within the program affect one another.

(2) Developing clear communication networks up and down and laterally.

(3) Increasing understanding of the various educational goals held by different persons within the program.

(4) Involving more persons at all levels in the decision-making.

(5) Developing organized procedures for solving problems through creative uses of groups.

(6) Developing procedures for continuously assessing progress that individuals are making in coordinating their actions.

(7) Developing procedures for sharing information among persons in the program.

(8) Developing some procedures for continuous training in effective communication, coordination, and problem-solving.

Strengths and Weaknesses

On balance, the model as it is currently developed has more strengths than weaknesses. The strengths of the organizational support system are as follows:

(1) The maintenance subsystem is well developed and thought through. I am especially impressed by the sequence of training activities and interventions suggested on pps. 500-503. If the five stages of this design are followed and executed effectively, I believe that they will lead to the goals of the subsystem. In the next major section of this paper I will comment in detail on the appropriate aspects of organizational development training to employ during the execution of these five stages.

(2) The problems to be confronted with the adaptive subsystem are extremely important and the concept of protocooperation is useful as a cognitive device for summarizing the complex issues involved. I am especially impressed also by the discussions about matters of organizational boundaries and control as well as the important differences in goals and values among the various institutions to be involved in the program. I think that it is also important to point out, as the report does, that the model must give high priority to developing effective role relationships among the several organizations focused in the main on interorganizational collaboration.

My reflections on the major weaknesses of the plan for developing an organizational support system grow out of the needs for protocooperation and the present statement concerning the adaptive subsystem. Even though the outlines for the adaptive subsystem have been drawn clearly, it does not seem to me that the strategies for developing that subsystem have been very completely developed. Some mention is made of diagnostic data for selecting congenial organizations, but almost no attention is given to the steps needed for developing such collaboration. One wonders, for instance, if protocooperation would not be enhanced by having had at least a few school people involved in preparing the model. Adapters of this model would be advised to involve practitioners from the field as early as possible.

As a second weakness, I think that the report should have spelled out more completely the kinds of organizational arrangements that might exist in the nearby public schools to accommodate for the continuous training of these future teachers. For instance, I would expect that a school organized in a unitized fashion would be a better setting for this model than schools organized in a traditional individuated manner. The unitized school is composed of several small groups of teachers (3-6), called instructional units. Each unit develops its own curriculum plan and critiques its own work. Such units could very easily accommodate several students or neophyte teachers. These new teachers would benefit from the group deliberations, from the mutual stimulation, and from being confronted with different styles and approaches to teaching. The utilized school would encourage and support the eclectic nature of this training program.

The Maintenance Subsystem

I now wish to analyze the essential properties and dynamics of the maintenance subsystem in order to shed more light on it for the prospective adapter of this model. The training program that is sketched on pps. 500-503 is necessary to develop supportive norms and interpersonal expectations for self-renewal. These training events should be designed to help the Syracuse faculty and students to become more aware, open, and analytic about their communication patterns, interpersonal problems, and organizational processes. The training sessions should be designed to help the program members to identify publically and openly the problems of communication that they are having, to use a systematic problem-solving procedure to improve communication, to relate improvements in organizational communication to student-faculty relationships within the college classroom, and to establish some procedures for continuously improving staff and student communication.

It is extremely important to point out that these training events, whatever shape they may take eventually, should not be designed to have their primary effect on individuals. Rather the training involved in developing an organizational support system should be aimed at the actual, intact, total organization of Syracuse staff and students.

The training activities outlined on pps. 500-503 will be most likely to have a lasting impact on the total organization of the program if all persons within the program are involved. Piecemeal strategies run the risk of creating a communication barrier between an in-group and an out-group; one group which has received special training and has been "anointed" or given special privileges by outside consultants while the other is still the "old bunch," not spoiled or improved by outside influences. Such inter-group dynamics are visible in human relations laboratories between T-groups and could easily emerge in this program if part of the total group is singled out for special training. It is important to remember that the organizational support system calls for organizational development training, not for personal sensitivity training.

Perhaps the clearest and most important perspective reflected in the five stage sequence is the focus on transfer of training. The ultimate goals of the training for an organizational support system are to equip the project personnel with knowledge, attitudes and skills that will allow them to function effectively during the school year. Ultimately, transfer will be enhanced by learning new skills and organizational patterns in virtually the same situations as the ones in which they must be applied. Transfer to the real world of the daily program will, of course, also be enhanced by having all program participants at as many training events as possible. This means that the overall design must involve an introductory phase in which all participants become tactfully involved and personally interested in risking new behaviors in front of colleagues. Because of this, the organizational family nature of this training project is at the same time the most advantageous and the most difficult aspect to take into consideration in developing concrete plans for the training events themselves.

Protocooperation and the Adaptive Subsystem

Perhaps the most difficult problem facing the prospective adapter of this model revolves around achieving collaboration among the critical institutions of the university, the school system, the regional laboratory, and industry. The simple involvement of university with school system is difficult enough. I wish to analyze the dynamics involved in university personnel interacting with school system personnel and to suggest some procedures for overcoming the barriers.

The likelihood of forming a close working relationship between university educators and public school practitioners is conditioned by a number of factors. Physical proximity of the school to a university, the amount of funds available in the school to purchase new materials and to hire expert consultants, the superintendent's desires for educational achievement and recognition, and the "cosmopolitan" character of the school staff indicated by attendance at professional meetings and conventions all may play a part in encouraging collaboration between university and school.

However, interactions in which university educator and school practitioner actually influence each other in a face-to-face setting are very much underused, in contrast, to one-way, more impersonal interactions. Such gulfs in communication encourage the emergence of in-group, out-group feelings similar to group prejudices which are accompanied by mutual stereotypes, low levels of trust and high amounts of suspicion. Practitioners are viewed by university faculty as being unsophisticated, anti-intellectual, and dependent, while university personnel are viewed by educators as wanting to base everything done in the school on research and as having their "heads in the clouds." Teachers are seen as "flying by the seat of their pants", as not interested in achieving educational goals, and as primarily concerned with maintaining a smooth running classroom. University professors are viewed as "not in the real world", as "feathering their own nests" and not as contributing to educational improvement. They are cynically referred to as "superior" individuals but actually are viewed as inferior because they are unable to be practical and down to earth.

Stereotypes and antipathies are intensified by a lack of two-way communication. As communication between researchers and administrators decreases, the initial stereotypes of each are less likely to be modified than if interpersonal give and take is continued. Indeed a lack of communication often increases negative feelings. The negative stereotypes that each holds of the other become more negative and well established because they are controlled by private fantasies rather than realistic perceptions and experiences. The lack of communication, the lack of giving and receiving feedback, as well as the sheer physical distances between the university and the public school help maintain the prejudices.

Not only is attraction low between university personnel and school persons because of this inter-group conflict, but also because to some extent each challenges and threatens the other's intelligence and professional role status. The university scholar fears that his research may not be relevant or significant; moreover, perhaps he really does not understand much about the processes of the school. The practitioner fears that the university person might uncover weaknesses in his school that would establish how poorly he administers the building or classroom compared with other educators. Or the educator may be concerned that his lack of knowledge about the rudimentary aspects of behavioral science will be made public. It is psychologically safer for each to remain separate and distinct from the other.

Let me now suggest a few action implications to increase the likelihood of achieving protocooperation between the university and public school systems.

(1) In order for the practitioner and the university professor to communicate effectively and collaboratively, there must be trust, openness, and some attraction between them. Trust can be increased through collaborative participation in cooperative enterprises. Cooperation, rather than competition, must be established between them. A norm of cooperation is facilitated when both parties communicate to each other their most significant intentions for entering into a relationship and their expectations of each other's behavior in the relationship. Moreover, cooperation can be maintained best when each party is able to tell the other that his expectations are being violated. Such open feedback between the two parties will help keep the norm of cooperation viable.

(2) Cooperative activity entered into by the educator and university professor should be structure- so that each will directly benefit from it.

The practitioner should be able to see how the program will help him in more effectively accomplishing some of his school's goals without spending very much additional time or money. The university person should be clear on the kinds of contributions to his program he will make by entering into the relationship.

(3) A period of time should be set aside at the beginning of any collaborative project for a discussion of the forces which might inhibit either the practitioner's or professor's participation in the program. Public discussion of restraining forces and how they might be overcome is an important part of "unfreezing" both parties for collaboration. Furthermore, covert resistances and anxieties may be raised and discussed, thus strengthening the interpersonal and intergroup bonds.

(4) The school practitioners and the university representatives should discuss and agree upon the superordinate goals that they share for the collaborative project. Even though both live in different sub-cultures which tend to encourage stereotypes and isolation, it is likely that both also share certain broad goals or values, e.g., higher achievement levels for students, more satisfaction in teaching for teachers, and more effective teaching in terms of student mental health and motivation to learn.